

**Keystone Oaks High School**

**Program of Studies**

**2023-2024**



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## KEYSTONE OAKS HIGH SCHOOL

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MICHAEL LINNERT  
HIGH SCHOOL PRINCIPAL  
LINNERT@KOSD.ORG

Dear Keystone Oaks High School Students & Families:

As you begin to plan for the upcoming school year with your child(ren), I am proud to present to you the high school Program of Studies. This catalog includes both our offerings for the upcoming school year, along with additional important information about Keystone Oaks High School. The Program of Studies is designed to allow for the continued educational growth and development of each student through personalized learning opportunities. Courses are created to meet the needs of all learners and help to prepare students to become future and college ready members of our community.

The Program of Studies contains valuable information to guide students throughout their high school career. Included in this guide is information relative to the high school, including a listing of each course and a description of what to expect. Also included are suggested course schedules that may assist with the planning of future years in each content area. Keystone Oaks High School is committed to supporting students' educational development through rigorous and relevant course offerings at each level.

As you review our offerings for the upcoming school year, take time to consider which courses may be right for you and that will help you to achieve your future goals. The staff and administration at Keystone Oaks High School are here to make suggestions, provide guidance, and present a welcoming, encouraging classroom environment for all students.

Yours in Education,

Mr. Michael Linnert  
Principal  
Keystone Oaks High School

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KEYSTONE OAKS IS AN EQUAL OPPORTUNITY SCHOOL DISTRICT

# **Keystone Oaks School District**

## **Vision Statements**

### **Mission Statement:**

Excellence in engaging, empowering, and enriching today for tomorrow's expectations

### **Core Values:**

Communication: Expressing, receiving, and sharing information

Empathy: Acknowledging the perspective, emotions, and experiences of all stakeholders

Global Competence: Responding to and understanding diverse cultural practices and world viewpoints

Imagination: Envisioning creative and innovative ways to take risks and solve problems

Integrity: Making ethical choices and doing the right thing regardless of personal gain

Learning: Acquiring, processing, and retaining information for life-long use

Motivation: Achieving goals through personal drive

Ownership: Having pride and taking responsibility for one's actions and their outcomes

Passion: Sparking the emotional connection that ignites one's purpose

Work: Being accountable and persevering

### **Learning Vision**

*The District strives to hear the voice of every child describing his/her learning through meaningful, engaging encounters.*

### **Curriculum Vision**

*The District promotes excellence in the academics, arts, activities, and athletics, while providing opportunities for all students that will prepare them for a successful future beyond Keystone Oaks.*

### **Instruction Vision**

*Students are motivated to learn at their individual, maximum pace while their developmental levels, and interests are being considered in their programs of study.*

### **Assessment Vision**

*Students are allowed and are encouraged to demonstrate their learning in a variety of ways.*

### **Technology Vision**

*All stakeholders enrich education through the thoughtful and responsible use of technology within a cycle of utilization, application, and evaluation.*

### **Personnel Vision**

*Personnel provide an engaging and nurturing environment that promotes the personal well-being of each student and every employee.*

### **Leadership Vision**

*To lead the district's mission and core values, leaders within the district embody authenticity, execute the vision, build relationships, provide quality direction, are service oriented, and effectively communicate to promote excellence.*

### **Stakeholder Vision**

*The stakeholders support the active involvement of guardians, District personnel, and community members in providing an environment that engages, empowers, and enriches every Keystone Oaks student.*

## **KEYSTONE OAKS HIGH SCHOOL ADMINISTRATION/FACULTY/STAFF**

Mr. Michael Linnert.....Principal  
Ms. Stephanie Hull.....Assistant Principal  
Ms. Lauryn Greggs.....Counselor  
Ms. Jennifer Tom.....Counselor  
Ms. Nicole Varrenti.....Counselor  
Ms. Melissa Bowers- Mental Health Therapist

### **Faculty**

#### **English**

Ms. Jennifer Bogdanski  
Ms. Rebekah Brooks  
Ms. Sarah Fontanesi  
Ms. Nancy Kraemer  
Ms. Carrie Quinn  
Ms. Lainey Resetar  
Ms. Kim Smykal

#### **Science**

Ms. Allyson Culp  
Ms. Christine Chimento  
Ms. Suzanne Deemer  
Ms. Rebecca Hritz  
Ms. Tricia Kreitzer  
Ms. Michelle McSwigan  
Mr. Ben Stewart

#### **Special Education**

Mr. Mark Elphinstone – Transitions  
Coordinator  
Ms. Joyelle Galiszewski  
Ms. Pam Gianoglio  
Mr. Michael Orsi  
Mr. Matthew Richert  
Mr. Michael Turner

#### **Foreign Language**

Ms. Lisa Forlini  
Dr. Michele Lowers  
Ms. Julie O'Mara

#### **Music**

Mr. William Eibeck  
Mr. Richard Smith

Mr. Mark Elphinstone-Cyber Education  
Ms. Annie McGaughey- Librarian  
Ms. Kathy Morrow - ESL

Ms. Sabrina Amman.....Secretary  
Ms. Kelsey Marucci.....Secretary  
Ms. Rose Stettler.....Secretary  
Mr. Mark Elphinstone.....Athletic and  
Activities Programs Facilitator

#### **Math**

Mr. Kevin Gallagher  
Mr. Jeff Kelly  
Ms. Danielle Kandrack  
Mr. Josh Kirchner  
Mr. John McCarthy  
Ms. Paige Petroval  
Mr. Randy Tobias

#### **Social Studies**

Mr. Shane Hallam  
Mr. Russell Klein  
Mr. John Murphy  
Mr. Jeff Sieg

#### **Art**

Ms. Heather Hakos-Hruby

#### **Technology Education**

Mr. Jeff Oestreich  
Mr. Craig Wetzel

#### **Computer & Data Science**

Mr. Kevin Gallagher  
Mr. Craig Wetzel

#### **Wellness**

Ms. Emily Brill  
Mr. Ken Hustava  
Mr. Nick Kamberis  
Ms. Jessica Naser

#### **Paraprofessionals**

Ms. Patricia Costantini  
Ms. Diane Flaherty

## **PROMOTION POLICY**

Graduation from Keystone Oaks High School currently requires satisfactory completion of 25.5 credits plus 1 credit of community service/career readiness for a total of 26.5 credits for the class of 2024 and beyond. Seniors who do not meet the graduation requirements must attend summer school and cannot participate in commencement. Students may attend summer school through the Keystone Oaks Cyber Program or CCAC, at their expense. Please refer to School Board Policy 214 for information on class rank.

## **GRADUATION REQUIREMENTS**

### **Planned Course Sequence and Credits**

Beginning in the ninth grade, students will demonstrate attainment of learning outcomes by completing the following Program of Planned Courses:

- English – 4 credits
- Social Studies - 4 credits
- Math – 4 credits
- Science – 4 credits
- Physical Education/Health - 1 credit
- Electives – 8 credits (must include .5 Speech, .5 Key to the Future 10, and .5 Money Matters)
- Community Service - .5 credit
- Career Readiness - .5 credit
- Computer Science - .5 credit

### **Course Selection**

As students prepare to select courses for the upcoming school year, the high school teaching staff, with support from the counseling staff, will suggest the next course for a student to take within a particular department. This suggestion is derived from their professional responsibilities and educational experiences with the student to the point of scheduling.

In the spirit of the District's Strategic Plan, which embraces personalized learning, competency-based learning, and project-based learning, parents/guardians and students have the option to challenge themselves with a different course than what has been suggested by the teacher and/or school counselor. To choose an alternative course other than what may have been suggested, a parent/guardian and student will need to complete a waiver form.

When selecting a course that is of a higher level than suggested, there is the potential of also having to complete some advanced work over the summer in order to be prepared for the course and hopefully eliminate any potential gaps in the student's current knowledge. A meeting may be scheduled with the school counselor to discuss this and provide the waiver form. Keystone Oaks High School is prepared to help each student meet his or her learning goals through a rigorous curriculum, while providing course suggestions that are supportive of each student.

### **Community Service**

All Keystone Oaks High School students must complete 60 hours of community service. The community service hours are prorated in 15-hour required increments during each of the four years. Students transferring to Keystone Oaks must complete community service hours adjusted to the date

of entry. Students may begin earning hours during May of their 8<sup>th</sup> grade year. It is required that students earn a minimum of 15 hours each school year to meet this requirement. For more information, please refer to the school website or contact your counselor.

- The Class of 2024 must complete a total of 45 hours.

### **Career Readiness**

All Keystone Oaks High School students must demonstrate career readiness through the development of a Career Plan, the completion of a career portfolio, culminating project, and participation in a job shadow.

For more information, please visit the school website or contact your counselor.

### **IEPs**

For students who are part of the Special Education Program, successful acquisition of the student goals and of graduation criteria will be accomplished within the requirements developed as part of the IEP process.

## **SCHEDULE CHANGES AND COURSE WITHDRAWAL**

Students will be expected to accept full responsibility for their course selections and to fulfill their commitment to these selections. Schedule changes will be made as a result of summer school make-up, computer errors, schedule conflicts, elimination of study halls, and special program placements. Students begin the scheduling process during the second semester each year. Students meet with their counselor on an individual basis to select courses for the next school year.

If withdrawal occurs . . .

. . . during days 1-10 a change may be made without a notation appearing on the student's transcript.

. . . after the 11<sup>th</sup> day, a "W" will be placed on the official high school transcript. There will be no exceptions.

A STUDENT WILL RECEIVE THEIR CURRENT GRADE FOR COURSES DROPPED AFTER 20 DAYS FOR A SEMESTER COURSE AND AFTER 40 DAYS FOR A FULL YEAR COURSE. The current grade will be included in the QPA calculations.

### **CLASS CANCELATION**

When scheduling classes, students must keep in mind that some classes may have to be canceled due to insufficient student enrollment. In this event, those students who have signed up for a canceled course will be contacted by their counselor, as soon as it is determined that a course is canceled, and given an opportunity to choose another class. It is very important that students identify alternative courses to ensure that a complete schedule can be created.

## **GRADING SYSTEM & NUMERICAL EQUIVALENTS**

A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%



Keystone Oaks School District no longer recognizes the top two graduates (a valedictorian and a salutatorian). Instead, the District recognizes graduates in three categories:

- Honors - GPA 3.5-3.74
- High Honors - GPA 3.75+
- Distinguished Graduate - PA 4.01+ and 100 or more hours of community service, and a leadership position within the school or community.

Letter Grade	Regular	Honors	AP	Grading Scale
A	4.0	4.5	5.0	90-100
B	3.0	3.5	4.0	80-89
C	2.0	2.5	3.0	70-79
D	1.0	1.0	1.0	60-69
E/F	0.0	0.0	0.0	0-59
P	0.0	0.0		

### **NCAA ACADEMIC ELIGIBILITY**

Any student planning to pursue collegiate athletics should contact the Athletic and Activities Programs Facilitator and visit the

NCAA website at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) or

[http://fs.ncaa.org/Docs/eligibility\\_center/Student\\_Resources/IE\\_Brochure.pdf](http://fs.ncaa.org/Docs/eligibility_center/Student_Resources/IE_Brochure.pdf) for more information.

Courses receiving approval by the NCAA are designated in the Program of Studies.

### **SCHOOL COUNSELING**

Last Names A-Ha    Mrs. Tom

Last Names He-O    Ms. Greggs

Last Names P-Z    Ms. Varrenti

#### **General Services**

The Counseling Department exists to help students make successful adjustments to school life. During high school, a variety of services will be available through the school counselor. Programs will be provided to acquaint students with school policies, programs of study, extracurricular activities, and counseling services. In addition, personal, social, educational, and career information materials are available. A counselor will assist with choosing an appropriate program of studies in keeping with a student's interests, abilities, and future plans.

#### **Future Fair**

The Counseling Department hosts an annual career and college fair in the fall. Students and their parents are invited to meet with career professionals and representatives from post-secondary institutions.

#### **College Briefings**

Representatives from colleges and universities make visits to the High School to meet with interested students. Students can sign up in the Counseling Office on the morning of the visit. Students are responsible for all work missed while attending the meeting. Monthly lists of visiting schools are posted in student homerooms.

## **Financial Aid**

The Counseling Department hosts a financial aid meeting in the spring of each year for students/parents of 11<sup>th</sup> and 12<sup>th</sup> grade students to provide information regarding financing post-secondary education.

## **FAFSA Completion Workshop**

A representative from PHEAA will be available in October to assist students and parents in completing the application for financial aid.

## **Student Assistance Team**

A SAP team made up of school and agency staff is available to help families access school and community services for your child. In Pennsylvania, every school district is required to have a plan for identifying and assisting students who experience barriers to learning. Our school's Student Assistance Program team consists of many dedicated professionals including teachers, counselors, specialists, and principals.

The SAP team will help families find services and assistance within the school and, if needed, in the community. The SAP team does not diagnose, treat or refer children for treatment. The team provides families with information to make the choice(s) that best fit their needs and wishes. Parents/guardians are an important part of the team.

The SAP team information is completely confidential and the team will respect the privacy of children and families at all times.

## **PSAT**

The Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) is a standardized test administered by the College Board and cosponsored by the National Merit Scholarship Corporation (NMSC). Scores from the PSAT/NMSQT are used to determine eligibility and qualification for the National Merit Scholarship Program. This test will be offered at Keystone Oaks High School to all 10<sup>th</sup> and 11<sup>th</sup> grade students during the Wednesday test date in October at the district's expense.

## **Keystone Exams**

The Keystone Exams are end-of-course assessments designed to assess proficiency in the subject areas of Algebra, Biology, and Literature. Please refer to the District website for the latest updates from the Pennsylvania Department of Education for additional information on the Keystone Exams or contact your counselor. As proficiency on the Keystone Exams in Algebra I, Biology, and Literature is the first pathway for state graduation requirements, Keystone Oaks High School will provide online remediation courses, including virtual office hours with a KOHS teacher, for any student who does not pass a Keystone Exam(s). Students may receive elective credit for these semester courses.

## **Senior Internship Opportunity**

### **SENIOR INTERNSHIP**

#902 Grade 12

This two-credit course is designed for senior students who are in good academic and attendance standing and desire direct experience in a career. Internships will begin in either the fall or spring semester of the senior year. Interested interns will complete an application, which will be reviewed by the Intern Selection Committee. If accepted they will be required to complete a minimum of fifteen hours each week at their designated job site. Interns are responsible for attending the Internship Orientation, submitting a weekly log, completing 270 field hours, adhering to all deadlines and meetings, and producing a presentation for a final assessment.

# Keystone Oaks High School

## STEM ACADEMY

The 2023-2024 school year will be the inauguration of the Keystone Oaks High School STEM Academy. Through a partnership with Robert Morris University, high school students will be able to enroll in courses throughout their high school years that will also count towards college level credits, which will be awarded by Robert Morris University.

The STEM Academy is designed as an Early College in High School program that is taught by Keystone Oaks teachers who have formed partnerships with faculty members at Robert Morris University in the Pre-Engineering and Mathematics Departments. Credits that are earned may be applied to entrance into Robert Morris University, upon graduation from Keystone Oaks, or to another college/university of which Robert Morris University has an articulation agreement.

For more details, students should contact Mr. Kevin Gallagher at [gallagher@kosd.org](mailto:gallagher@kosd.org).

The following Keystone Oaks High School Courses have been approved by Robert Morris University for college level credit:

### **Keystone Oaks STEM Academy (Approximately 15 College Credits):**

Required Courses:

**C**omputer **S**cience: At least 1 year of programming. All courses count towards the one-year requirement, but must include either Robotics (C++), AP CS A (Java) and/or Data Science with Python

**T**echnology Education: Accelerated CADD

**E**ngineering: Engineering and Design

**M**athematics: AP, Honors, or Accelerated Trigonometry and Pre-Calculus

**One additional course:** AP or Honors Calculus AB or BC, AP or College Statistics, or an additional programming course including Robotics (C++), AP CS A (Java) or Data Science.

Students who minimally complete the above requirements will receive discounted credit costs and other benefits including, but not limited to a trip to RMU at the beginning of each semester they are enrolled in the program

## **PARKWAY WEST CAREER AND TECHNOLOGY CENTER**

### **GENERAL INFORMATION**

#### **ADMISSION PROCEDURES**

Students should request an online application form from the High School Counseling Office. This application is to be completed and returned to the counselor who will prepare a transcript to accompany the application. When all admission procedures and final evaluations are completed, students are notified of acceptance. Parkway West students must maintain satisfactory grades at their home school in order to continue their technical training.

#### **ELIGIBILITY**

Students who have successfully completed the eighth grade are eligible for consideration. Students admitted to Parkway West are selected from a wide range of ability and achievement levels. The following factors are considered:

Ability	An inclination towards technical and manual areas, a degree of manual dexterity and talent for training in a technical field is preferred.
Grades	Students need to be in good academic standing to participate in Parkway.
Math	An understanding of basic math is required for most technical and trade areas. Algebra is required for some programs.
Maturity	A record of regular attendance, cooperation, diligence, perseverance, and responsible behavior is required.

Those students who attend Parkway will enroll in History (course appropriate for grade level) at Parkway or online through KO Cyber.

#### **ATTENDANCE**

Students attend Parkway West for half-day sessions. The other half-day is spent at the home school following a schedule of general academic courses. Students will attend the A.M. session (7:40 - 10:25). In the event of absence, students must submit an excuse to Parkway within 2 days of their return to school.

#### **TRANSPORTATION**

The home school provides transportation to and from Parkway West. Prior to the first day of school, students will receive a bus schedule of pick-up times and locations.

#### **ADVANCED EDUCATION**

Although the primary purpose of the technical school program is to prepare students for employment, it quite often prepares them for further education. It is possible for technical school students to select appropriate academic courses at the home school to become eligible for admission to colleges or other institutions of higher education. In some programs, credit is earned for advanced standing in college, technical school, professional school, or apprenticeship programs.

#### **CREDIT**

Students receive three credits for each year successfully completed at Parkway West. All credits earned are transferred to the home school to become a part of the student's permanent record. Upon graduation, students will receive a diploma from their home school and a certificate of achievement from Parkway West.

## **WITHDRAWAL FROM PARKWAY**

Any student who withdraws from Parkway without completing the school year will receive no credit.

## **CAREER MAJORS**

Auto Body Repair

Automotive Technology

Construction Technology Cluster

- Carpentry

- Electrical Systems Technology

- Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC)

- Welding Technology

Cosmetology

- Nail Technician (open to seniors only)

- Teacher License (must have a Cosmetology license)

- Culinary Arts

Diesel Technology

Graphic Arts and Production Technology

Health Occupations Technology

- Phlebotomy (open to seniors only)

- Pharmacy Technology (open to seniors only)

Cyber Security and Network Technology

Public Safety Technology

Sports Medicine and Rehabilitation Therapy Technology (SMARTT)

Power Motor Sports

Veterinary Assistant Technology

# ***Sample Program Applied Curriculum***

## **Grade 9**

Applied English 9  
Speak to Lead 9  
World History 9  
Algebra IA  
Applied Biology  
Physical Education/Health  
Electives

## **Grade 10**

Applied English 10  
Key to the Future 10  
Government and Economics  
Algebra IB  
Applied Chemistry  
Physical Education/Health  
Electives

## **Grade 11**

Applied English 11  
Modern American History  
Applied Geometry  
Money Matters  
Applied Physics  
Physical Education  
Electives

## **Grade 12**

Applied English 12  
Accelerated Sociology/Psychology  
Business Math  
Applied Environmental Science  
Electives **OR**  
Work Study, Internship, or Dual Enrollment

Note: Class of 2024 must take .5 credit in computer science

# ***Sample Program Accelerated***

## **Grade 9**

Accelerated English 9  
Speak to Lead 9  
World History 9  
Accelerated Algebra I or Accelerated Geometry  
Accelerated Biology  
Physical Education/Health  
Electives

## **Grade 10**

Accelerated English 10  
Key to the Future 10  
Government and Economics  
Accelerated Geometry and/or Accelerated Algebra II  
Accelerated Chemistry  
Physical Education/Health  
Electives

## **Grade 11**

Accelerated English 11  
Modern American History  
Accelerated Algebra II or Accelerated Trigonometry/Pre-Calculus  
Accelerated Physics and Accelerated Chemistry II or Organic Chemistry or Human Anatomy or  
Forensic Science  
Money Matters  
Physical Education  
Electives

## **Grade 12**

Accelerated English 12  
Accelerated Sociology and Accelerated Psychology  
Accelerated Trigonometry/PreCalculus, College Algebra/Statistics, or CHS Business Calculus or AP  
Statistics  
Accelerated Chemistry II or Organic Chemistry or Human Anatomy or Forensic Science or AP  
Environmental Science  
Electives **OR**  
Work Study, Internship, or Dual Enrollment

Note: Class of 2024 must take .5 credit in computer science



# ***Sample Program Honors/Advanced Placement***

## **Grade 9**

Honors English 9  
Speak to Lead 9  
Honors World History 9  
Honors Algebra II/Honors Geometry  
Honors Biology  
Physical Education/Health  
Electives

## **Grade 10**

Honors English 10  
Key to the Future 10  
Honors Government and Economics  
AP Pre-Calculus  
Honors Chemistry and AP Physics 1  
Physical Education/Health  
Electives

## **Grade 11**

AP English Language & Composition or AP Literature  
AP US History  
AP Calculus AB or AP Statistics  
AP Biology or AP Chemistry or AP Physics 2  
Money Matters  
Physical Education  
Electives

## **Grade 12**

AP English Literature or AP English Language & Composition  
AP Psychology/AP European History/AP Comparative Government  
AP Calculus AB or AP Calculus BC and/or AP Statistics  
AP Biology and/or AP Chemistry and/or AP Physics 2 and/or AP Environmental Science  
Electives **OR**  
Work Study, Internship, or Dual Enrollment

Note: Class of 2024 must take .5 credit in computer science

## ***Sample Program***

### ***Vocational/Technical Education***

Each year of participation, students will take courses in their program during Parkway's morning session. They will return to school in the afternoon for their core academic classes, including English, math, and science. Students will be enrolled in an online history course.

Students who participate in Parkway may take core academic classes from the general curriculum, accelerated, or the honors/advanced placement track. Modifications of individual schedules may have to be made pending the results of the Keystone exams.

## ENGLISH COURSES

Students must earn four English credits to meet graduation requirements. In addition to their regular, year-long English class, students will take an additional semester course during each of their first two years of high school. All year-long English classes will earn one credit upon successful completion; semester classes will earn a half credit. AP courses fall under the AP contract (Appendix C)

Grade 9 - *\*students must select one of these courses toward their English requirement*

Applied English 9

Accelerated English 9

Honors English 9

Speak to Lead – *Required Course under Elective Credits* for all 9<sup>th</sup> graders  
(semester)

Grade 10 - *\*students must select one of these courses toward their English requirement*

Applied English 10

Accelerated English 10

Honors English 10

Key to the Future – *Required Course under Elective Credits* for all 10<sup>th</sup> graders  
(semester)

Grade 11 - *\*students must select one of these courses toward their English requirement*

Applied English 11

Accelerated English 11

AP English Language & Composition or AP English Literature & Composition

Grade 12 - *\*students must select one of these courses toward their English requirement*

Applied English 12

Accelerated English 12

AP English Literature & Composition or AP English Language & Composition

Electives (cannot be taken in place of a required, one-credit, full-year English course)

Creative Writing

Advanced Creative Writing

Introduction to Theatre I

Introduction to Theatre II

Journalism

Poetry Workshop

## **Grade 9 Course Offerings**

#109                      Grade 9                      **APPLIED ENGLISH 9**  
NCAA Approved

Applied English 9 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. This course is designed to meet state standards for reading, writing, speaking, and listening.

#119                      Grade 9                      **ACCELERATED ENGLISH 9**  
NCAA Approved

Accelerated English 9 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. The course encourages students to become independent thinkers. This course is designed to meet and exceed state standards for reading, writing, speaking, and listening. Content is approached at a quicker pace.

#123                      Grade 9                      **HONORS ENGLISH 9**  
NCAA Approved

Honors English 9 is a course designed to strengthen student skills in preparation for college and career readiness and Advanced Placement classes. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. The course encourages students to become independent thinkers. This course is designed to meet and exceed state standards for reading, writing, speaking, and listening. Additional content is pursued.

#142                      **SPEAK TO LEAD (Required Course under Elective Credits; semester)**  
Grade 9                      NCAA Approved

This required course is designed so that students will develop an awareness of the importance of communication skills and demonstrate an understanding of the process. Course emphasis will be on communication skills essential for success in school, college, career, and as a citizen. Methods of delivery to be taught include manuscript, impromptu, and extemporaneous.

## **Grade 10 Course Offerings**

### **APPLIED ENGLISH 10**

#110                      Grade 10                      NCAA Approved

Applied English 10 is a course designed to offer a thematic approach to world literature. The course will focus on improving reading comprehension skills and critical thinking skills of students by requiring him/her to explore interesting and challenging themes. This course will focus on utilizing a wide range of writings and media to approach a broad theme. All students will critically evaluate themes in various works of literature by employing group instruction, small group review, independent practice, and interactive methods for comprehension and analysis.

### **ACCELERATED ENGLISH 10**

#120                      Grade 10                      NCAA Approved

Accelerated English 10 is a course designed to offer a thematic approach to world literature. The course will focus on improving the communication skills of the college bound student by requiring him/her to explore interesting and challenging themes. Creative, research, and communication processes will be tools used by all students to critically evaluate these themes in various works of literature.

### **HONORS ENGLISH 10**

#124                      Grade 10                      NCAA Approved

Honors English 10 is a course designed to strengthen student skills in preparation for college and career readiness and Advanced Placement classes. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. The course encourages students to become independent thinkers. This course is designed to meet and exceed state standards for reading, writing, speaking, and listening. Additional content is pursued.

### **KEY TO THE FUTURE 10**

**(Required Course under Elective Credits; semester)**

#146                      Grade 10

Key to the Future is a course that is designed to enhance and strengthen students' approach to college and career development and provide strategies for future standardized testing. Students will research and explore future careers and practice communication skills necessary for career acquisition and maintenance. Additionally, students will develop skills to write job applications, cover letters, and professional emails, as well as argumentative and informational essays. Student essays will be evaluated and scored according to specific criteria and structure.

## **Grade 11 Course Offerings**

### **APPLIED ENGLISH 11**

#111                      Grade 11                      NCAA Approved

Applied English 11 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. This course is designed to meet state standards for reading, writing, speaking, and listening.

### **ACCELERATED ENGLISH 11**

#121                      Grade 11                      NCAA Approved

Accelerated English 11 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. The course encourages students to become independent thinkers. This course is designed to meet and exceed state standards for reading, writing, speaking, and listening. Content is approached at a quicker pace.

### **AP ENGLISH LANGUAGE & COMPOSITION**

#130                      Grade 11 or 12    NCAA Approved

The AP English Language and Composition course aligns to an introductory college level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

### **AP ENGLISH LITERATURE & COMPOSITION**

#126                      Grade 11 or 12    NCAA Approved

AP English Literature & Composition follows a course consistent with the Advanced Placement Program and is comparable to a freshman course in college. The readings survey a variety of periods and forms of world literature including fiction, poetry, and drama. The class discussions are based on close analysis of the meaning and structure of the literature being studied. Composition is predominantly analytic or expository and is based on the literature being read.

## **Grade 12 Course Offerings**

### **APPLIED ENGLISH 12**

#112

Grade 12

NCAA Approved

Applied English 12 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. This course is designed to meet state standards for reading, writing, speaking, and listening.

### **ACCELERATED ENGLISH 12**

#122

Grade 12

NCAA Approved

Accelerated English 12 is a course designed to strengthen student skills in preparation for college and career readiness. The focus is in all areas of communication: oral, written, listening, group interaction, and transfer of knowledge to direct application. The course encourages students to become independent thinkers. This course is designed to meet and exceed state standards for reading, writing, speaking, and listening. Content is approached at a quicker pace.

### **AP ENGLISH LITERATURE & COMPOSITION**

#126

Grade 11 or 12 NCAA Approved

AP English Literature & Composition follows a course consistent with the Advanced Placement Program and is comparable to a freshman course in college. The readings survey a variety of periods and forms of world literature including fiction, poetry, and drama. The class discussions are based on close analysis of the meaning and structure of the literature being studied. Composition is predominantly analytic or expository and is based on the literature being read.

### **AP ENGLISH LANGUAGE & COMPOSITION**

#130

Grade 11 or 12 NCAA Approved

The AP English Language and Composition course aligns to an introductory college level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

## **Elective Offerings in English**

### **CREATIVE WRITING (semester)**

#145

NCAA Approved

This coffee shop-style course explores creative writing styles in the formats of image poetry, dominant impressions, character sketches, personal narratives, and drama. Special techniques for each format and prompts are studied and then applied to the students' original compositions. This class offers an avenue for students to express their voice through imaginative writing. Each student will leave the course with a portfolio of his/her own work.

### **ADVANCED CREATIVE WRITING (semester)**

#147

NCAA Approved

This coffee shop-style course continues to explore the foundations utilized in the course, Creative Writing. Students will continue to express their own voice through imaginative writing. The focus of this course will be on various genres and mediums of writing. Special techniques for each format are studied and then applied to the students' original compositions. This class offers an avenue for students to express their voice through imaginative writing. Each student will leave the course with a portfolio of his/her own choice of a genre(s) and medium(s).

### **INTRODUCTION TO THEATRE I (semester)**

#163

This is a one-semester course for students interested in stage performance. Emphasis will be on creation of authentic characters, script analysis, and confident delivery, while exploring elements of improvisation and pantomime. The class will perform individual monologues, duos, as well ensemble work. Students additionally will perform a pantomime in the high school Varieties Show and participate in the Shakespeare Scene and Monologue Contest at the Pittsburgh Public Theater.

### **INTRODUCTION TO THEATRE II (semester)**

#162

This is a one-semester course for students to extend their knowledge of the theater. It will include some performance activities, as well as exploration into other elements of theater including staging, costumes, set design, lighting, script analysis, and a final cumulative project.

### **JOURNALISM (semester)**

#145/146

NCAA Approved

Journalism is a course designed to offer an introduction to journalistic writing, photography, and online publication of a student newspaper. This course will emphasize interview skills, feature writing, sports writing, and editorial writing. Students will participate in the process of the publication, *The Keynote*. In order to earn credit for the course, students will write publishable articles on student news, activities, and events. This course will be offered both semesters. Students may take this course twice.



## **POETRY WORKSHOP (semester)**

#150

NCAA Approved

This course will study works from Robert Frost, William Wordsworth, Emily Dickinson, E.E. Cummings and many of their contemporaries as students seek to understand, analyze, and write poetry. Students will study methods, forms, and experiences that have helped develop these poets and also write poetry using many of the same devices. Through in-class writing exercises, reading of model poems, and discussion of student work, this course encourages students to produce poetry of increasing quality. Students will learn the basic elements of poetry, important types of poems, and fundamental poetic techniques while also exploring different forms of poems from various time periods and begin to learn what it takes to create a poem. Students will be expected to write analytically about poetry in addition to writing their own original poetry.

## **SOCIAL STUDIES COURSES**

Students must earn four social studies credits to meet graduation requirements. Each social studies course listed is worth one credit, unless otherwise designated as a semester (half credit) course. AP courses fall under the AP contract (Appendix C)

### **Grade 9**

World History 9  
Honors World History 9

### **Grade 10**

Government & Economics  
Honors Government & Economics

### **Grade 11** *\*students must select one of these courses toward their Social Studies requirement*

Modern American History  
AP United States History

### *\*students may select one of these courses toward their electives requirement*

AP European History  
AP Comparative Government & Politics  
History of the United States through Pop Culture (semester)  
The American Presidency (semester)  
Destination USA (semester)  
American Law and Justice (semester)  
Contemporary Domestic Issues (semester)

**Grade 12** *\*students must select two semester courses or one full year course toward their Social Studies requirement. Students may not repeat any courses. Additional courses may be taken as electives.*

Accelerated Sociology (semester)  
Accelerated Psychology (semester)  
History of the United States through Pop Culture (semester)  
The American Presidency (semester)  
Destination USA (semester)  
American Law and Justice (semester)  
Contemporary Domestic Issues (semester)

AP Psychology  
AP European History  
AP Comparative Government & Politics

## **Grade 9 Course Offerings**

### **WORLD HISTORY 9**

#217

Grades 9

NCAA Approved

World History places an emphasis on geography, time-period, inventions, and prominent people. The course blends social, political, economic, and cultural events to help students comprehend the diversity of people and their achievements from Feudalism to present. Evaluation will be based on critical-thinking, writing skills, quizzes, tests, homework, participation, and reflective essays.

### **HONORS WORLD HISTORY 9**

#218

Grades 9

NCAA Approved

Honors World History will generate a study from the Middle Ages to present day. Students will experience learning using a broad spectrum of activities. They will debate, articulate content through Socratic Seminars, draw conclusions from chapter concepts, and demonstrate opinions and justifications through a reflective essay. The students will be able to identify the significance and recurring themes such as: power and authority, cultural interaction, economics, science and technology, and art. The objective of the course is for the student to understand and correlate the historical information to improve themselves as individuals and as a community.

## **Grade 10 Course Offerings**

### **GOVERNMENT AND ECONOMICS 10**

#211

Grade 10

NCAA Approved

This course will provide the student with fundamental knowledge regarding the American political and economic system. The primary objective is to help each individual make intelligent decisions as a citizen and consumer in today's society. Skills related to this objective will be stressed, along with factual knowledge and an emphasis on current topics. Problem solving activities will be an integral part of the course. Evaluation will be based on unit examinations, quizzes, class projects, homework, and participation.

### **HONORS GOVERNMENT AND ECONOMICS 10**

#224

Grade 10

NCAA Approved

This course is designed for the college bound student who needs to reinforce his/her academic skills with high school level materials and activities. The content of the course will focus on American government and the American Capitalist System. Curriculum will be supported by current political and economic topics as they relate to class content. The theories behind, and actual operation of, our political and economic system will be presented in such a manner as to help the student make useful decisions pertinent to today's society. Central to this objective will be an emphasis on communications, reasoning, and study skills consistent with the needs and abilities of a college bound high school sophomore. Evaluation may consist of a combination of unit examinations, quizzes, out-of-class assignments, research projects, and class participation.

## **Grade 11 Course Offerings**

Note: Students must complete either Modern American History or A.P. U.S. History. Other listings may be used for elective credit

### **MODERN AMERICAN HISTORY 11**

#215                      Grade 11                      NCAA Approved

Modern American History places an emphasis on prominent people, events, and social changes that took place in America from 1920 to the present including current events that are shaping the current world. The course blends social, political, economic, and cultural events that show the history and evolution of the United States. Evaluation will be based on critical-thinking, writing skills, quizzes, tests, homework, participation, and note-taking skills.

### **AP UNITED STATES HISTORY**

#230                      Grade 11                      NCAA Approved

AP United States History is designed for the student who desires an intensive study of American history from the colonial period to the present. Emphasis is on skill development consistent with the demands of a college level course. A particular focus of the course is to prepare each student for the Advanced Placement Examination. Evaluation is based upon unit and semester examinations, essay development, book reviews, class recitation, and a research paper.

### **AP EUROPEAN HISTORY**

#231                      Grades 11 or 12                      NCAA Approved

AP European History is designed to provide the students with skills and content knowledge required on the college level. The history of Europe includes political, social and economic, cultural, and intellectual themes. Grades are based on recitation in class quizzes and exams, project papers, and work reviews. Students may choose to take the Advanced Placement exam for college credit at the end of the year.

### **AP COMPARATIVE GOVERNMENT & POLITICS**

#233                      Grades 11 or 12                      NCAA Approved

This course will establish conceptual lenses to compare political and socio-economic phenomena in six countries: Great Britain, Russia, China, Iran, Nigeria, and Mexico. We will learn about the impact of political structure, political culture, political socialization, political recruitment, political institutions, interest groups, etc. on the domestic policies of these nations. The course is designed to introduce the discipline of comparative politics and to learn the art of critical analysis as we establish variables to compare across national boundaries. The methodology for the course will introduce theories of comparative politics, establish conceptual lenses to study it, and use countries as a comparative case studies.

### **AMERICAN LAW AND JUSTICE (semester)**

#253                      Grades 11 or 12

American Law and Justice is a semester course designed to provide students with a practical understanding of law and the legal system; to improve understanding of the fundamental principles and values underlying our Constitution, laws, and legal system; to promote awareness of current issues and controversies relating to law and the legal system; to encourage effective citizen participation in

our legal system; and to bring about a greater sense of justice, tolerance, and fairness. The course is designed to improve basic skills, including critical thinking and reasoning, communication, observation, and problem solving. The curriculum includes a balance of legal knowledge, application of this knowledge, and experiential activities. Included in this is reflection of local politics and lawmaking, the police and prison system, as well as the court system locally and in America. Activities include legal case studies, mock-trials, and the use of community resource people in the classroom, such as local politicians, lawyers, judges, and police officers.

### **CONTEMPORARY DOMESTIC ISSUES (semester)**

#254

Grades 11 or 12

This semester course provides students with the opportunity to explore current domestic issues in the realm of politics, economics, peace and security, health, and the environment. Students have flexibility in the topics they study based on the current issues happening each semester. Students will do copious research into the history and progress of contemporary domestic issues while analyzing these issues from every political side. Students are expected to have an extensive background in formal research skills, writing, and public speaking. It is also recommended that students have a substantial knowledge of current U.S. and world affairs.

### **THE AMERICAN PRESIDENCY (semester)**

#251

Grades 11 or 12

This course focuses on key elements of the office of the President of the United States. This would include formal and informal qualifications, powers that the president possesses, various roles that the president carries out, a comparison of leadership styles, and how the presidency has changed and developed throughout U.S. history. A major focus will be on key moments in American history and on vital decisions made by numerous presidents, including actions taken and possible alternatives that were considered in the decision-making process.

### **DESTINATION U.S.A. (semester)**

#252

Grades 11 or 12

This course reviews key geographic regions of our country in a fun and organized manner. The course would provide an opportunity for students to review the geographic location and information of each state and territory while researching and sharing information about a chosen destination within that state. Cooperative learning, student-based projects, and student presentations will be used to help students learn from one another. Students would be assigned a state within a geographical region and develop a project to highlight a destination within that state to be shared with their classmates. Various project options will be made available when considering the different regions of our country.

### **HISTORY OF THE UNITED STATES THROUGH POP CULTURE (semester)**

#250

Grades 11 or 12

In this course students will critically analyze eras of history and focus on the events and culture of the times. Students will progress through American History in an effort to determine how society reacted to events and how movies, fads, music, TV, and culture impacted daily lives. We will define pop culture, why people care about it, and how it truly reflects the values of society over time.

## **Grade 12 Course Offerings**

Students must take two semester or one full year course from the listings. Additional courses may be taken as electives.

### **ACCELERATED SOCIOLOGY 12 (semester)**

#222

Grade 12

NCAA Approved

Sociology will help students prepare for careers in an increasingly diverse world. Course content will focus on the scientific study of society. Students will be introduced to sociological theory and address important issues such as culture, social organization, inequalities, class structure, deviance, conformity, social change, and other contemporary social issues. Evaluation will consist of homework assignments, quizzes, essays, unit exams, and class discussions.

### **ACCELERATED PSYCHOLOGY 12 (semester)**

#223

Grade 12

NCAA Approved

Psychology is designed to involve the student in the scientific study of behavior and the human mind. Emphasis is on understanding why people behave as they do and what may influence that behavior. Additional topics include theories of personality, development, thinking, memory, social behavior, disorders, and treatment. Psychology will offer important lessons that can be applied to any career. Evaluation will consist of homework assignments, quizzes, essays, unit exams, and class discussions.

### **AMERICAN LAW AND JUSTICE (semester)**

#253

Grades 11 or 12

American Law and Justice is a semester course designed to provide students with a practical understanding of law and the legal system; to improve understanding of the fundamental principles and values underlying our Constitution, laws, and legal system; to promote awareness of current issues and controversies relating to law and the legal system; to encourage effective citizen participation in our legal system; and to bring about a greater sense of justice, tolerance, and fairness. The course is designed to improve basic skills, including critical thinking and reasoning, communication, observation, and problem solving. The curriculum includes a balance of legal knowledge, application of this knowledge, and experiential activities. Included in this is reflection of local politics and lawmaking, the police and prison system, as well as the court system locally and in America. Activities include legal case studies, mock-trials, and the use of community resource people in the classroom, such as local politicians, lawyers, judges, and police officers.

### **CONTEMPORARY DOMESTIC ISSUES (semester)**

#254

Grades 11 or 12

This semester course provides students with the opportunity to explore current domestic issues in the realm of politics, economics, peace and security, health, and the environment. Students have flexibility in the topics they study based on the current issues happening each semester. Students will do copious research into the history and progress of contemporary domestic issues while analyzing these issues from every political side. Students are expected to have an extensive background in formal research skills, writing, and public speaking. It is also recommended that students have a substantial knowledge of current U.S. and world affairs.

### **THE AMERICAN PRESIDENCY (semester)**

#251

Grades 11 or 12

This course focuses on key elements of the office of the President of the United States. This would include formal and informal qualifications, powers that the president possesses, various roles that the president carries out, a comparison of leadership styles, and how the presidency has changed and developed throughout U.S. history. A major focus will be on key moments in American history and on vital decisions made by numerous presidents, including actions taken and possible alternatives that were considered in the decision-making process.

### **DESTINATION U.S.A. (semester)**

#252

Grades 11 or 12

This course reviews key geographic regions of our country in a fun and organized manner. The course would provide an opportunity for students to review the geographic location and information of each state and territory while researching and sharing information about a chosen destination within that state. Cooperative learning, student-based projects, and student presentations will be used to help students learn from one another. Students would be assigned a state within a geographical region and develop a project to highlight a destination within that state to be shared with their classmates. Various project options will be made available when considering the different regions of our country.

### **HISTORY OF THE UNITED STATES THROUGH POP CULTURE (semester)**

#250

Grades 11 or 12

In this course students will critically analyze eras of history and focus on the events and culture of the times. Students will progress through American History in an effort to determine how society reacted to events and how movies, fads, music, TV, and culture impacted daily lives. We will define pop culture, why people care about it, and how it truly reflects the values of society over time.

### **AP PSYCHOLOGY**

#232

Grade 12

NCAA Approved

AP Psychology is designed to introduce the student to the scientific study of the behavior and the mental processes of humans and animals. Students will study all of the major theories of psychology, as well as units on the brain, cognition, personality, behavior, and disorders. Evaluation will be based upon quizzes, tests, homework assignments, and research. Students may choose to take the Psychology Advanced Placement exam for college credit at the end of the year.

### **AP COMPARATIVE GOVERNMENT & POLITICS**

#233

Grade 11 or 12

NCAA Approved

This course will establish conceptual lenses to compare political and socio-economic phenomena in six countries: Great Britain, Russia, China, Iran, Nigeria, and Mexico. We will learn about the impact of political structure, political culture, political socialization, political recruitment, political institutions, interest groups, etc. on the domestic policies of these nations. The course is designed to introduce the discipline of comparative politics and to learn the art of critical analysis as we establish variables to compare across national boundaries. The methodology for the course will introduce theories of comparative politics, establish conceptual lenses to study it, and use countries as a comparative case studies.

## **AP EUROPEAN HISTORY**

#231

Grades 11 or 12

NCAA Approved

AP European History is designed to provide the students with skills and content knowledge required on the college level. The history of Europe includes political, social and economic, cultural, and intellectual themes. Grades are based on recitation in class quizzes and exams, project papers, and work reviews. Students may choose to take the Advanced Placement exam for college credit at the end of the year.



## **MATHEMATICS COURSES**

Students must earn four credits in Mathematics to meet graduation requirements. AP courses fall under the AP contract (Appendix C). All Algebra courses will prepare students for the PA Keystone Exam in Algebra.

Although the majority of students take Algebra 1 in high school, students should be encouraged to take Algebra I prior to entering 9<sup>th</sup> grade. In the year following Algebra I, students are encouraged to take both Algebra II and Geometry. Students taking Accelerated or Honors Geometry or Accelerated or Honors Algebra 2 must have either passed the Algebra 1 Keystone Exam or be enrolled in online Algebra I remediation.

Students may earn college credit by obtaining a qualifying score on the AP Precalculus, AP Statistics, AP Calculus AB, and/or AP Calculus BC exam. Students may also earn college credit by achieving a “C” or better in the College in the High school courses in Business Calculus, College Algebra, and and/or College Statistics. AP courses fall under the AP contract (Appendix C).

Students may take computer science course(s) to satisfy one (1) of their four (4) math credits.

Students should seek the recommendation of a math teacher, the math curriculum/department leader and/or a counselor if they have any questions regarding scheduling.

# Keystone Oaks High School

## STEM ACADEMY

The 2023/2024 school year will be the inauguration of the Keystone Oaks High School STEM Academy. Through a partnership with Robert Morris University, high school students will be able to enroll in courses throughout their high school years that will also count towards college level credits, which will be awarded by Robert Morris University.

The STEM Academy is designed as an Early College in High School program that is taught by Keystone Oaks teachers who have formed partnerships with faculty members at Robert Morris University in the Pre-Engineering and Mathematics Departments. Credits that are earned may be applied to entrance into Robert Morris University, upon graduation from Keystone Oaks, or to another college/university of which Robert Morris University has an articulation agreement.

For more details, students should contact Mr. Kevin Gallagher at [gallagher@kosd.org](mailto:gallagher@kosd.org).

The following Keystone Oaks High School Courses have been approved by Robert Morris University for college level credit:

**C**omputer **S**cience: At least 1 year of programming. All courses count towards the one-year requirement, but must include either Robotics (C++), AP CS A (Java) and/or Data Science with Python

**T**echnology Education: Accelerated CADD

**E**ngineering: Engineering and Design

**M**athematics: AP, Honors, or Accelerated Trigonometry and Pre-Calculus

**One additional course:** AP Calculus AB or BC, AP or College Statistics, or an additional programming course including Robotics (C++), AP CS A (Java) or Data Science.

Students who minimally complete the above requirements will receive discounted credit costs and other benefits including, but not limited to a trip to RMU at the beginning of each semester they are enrolled in the program

**Some Example Pathways (Note these are examples and students do not need to be confined by grade level)**

9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Algebra 1 A	Algebra 1 B	Applied Geometry	Applied Algebra II or Business Math or Statistics and Sports
Accelerated Algebra I	Accelerated Geometry	Accelerated Algebra II	Accelerated Trig/ Pre-Calculus, College Algebra/College Statistics, Financial Algebra, Business Math, or Statistics and Sports
Accelerated Geometry	Accelerated Algebra II	Accelerated Trig/Pre-Calculus	CHS Business Calculus AP Statistics
Honors Algebra I	Honors Algebra II and Honors Geometry	AP Pre-Calculus AP Statistics	AP Calculus AB CHS Business Calculus
Honors Algebra 2 and Honors Geometry	AP Precalculus	AP Calculus AB AP Statistics	AP Calculus BC AP Statistics

### ALGEBRA 1A

#010

Algebra 1A is year one of a two-year course in Algebra 1. Algebra 1A is designed to give students a strong foundation in algebra. Students will study various concepts which will focus on functions, solving and graphing linear equations and inequalities, writing equations of lines, and applications to real world problems. Individual and group projects will be a component of this course.

### ALGEBRA 1B

#011

Algebra 1B is year two of a two-year course in Algebra 1. Algebra 1B will focus on the second half of a traditional Algebra course with additional topics to prepare the student for the Keystone Exam given in the spring. Topics include systems of equations and inequalities, exponents, polynomials, and data analysis and probability. Individual and group projects will be a component of this course. Students are required to take the Keystone Algebra exam in the spring at the end of the Algebra 1B course.

## **ACCELERATED ALGEBRA I**

#331

NCAA Approved

The study of algebra expands what students know about applying operations to numbers to get specific facts to thinking in terms of patterns that are valid in many situations. Algebra 1 students spend much of the year modeling real life problems with constant rates of change. To do this, students explore the properties of real numbers, absolute value, proportional reasoning, systems of linear equations and inequalities, and a brief introduction to quadratic equations. All students are required to take the Keystone Algebra Exam offered in the spring.

## **HONORS ALGEBRA I**

#332

NCAA Approved

Rigorous and fast paced, this course is designed for the college bound student. Topics include expressions; equations; function; real number properties; solving, graphing, and writing linear equations; functions and inequalities; systems of equations and inequalities; exponents; exponential functions; polynomials and factoring; quadratic equations; quadratic functions; radicals; and geometric connections. All students enrolled in this course must take the Keystone Algebra I Exam in the spring.

## **APPLIED GEOMETRY**

#327

NCAA Approved

In this course, students will study topics including congruence and similarity, properties of lines, triangles, quadrilaterals, and circles. Students will apply skills from algebra as well to solve problems by using length, perimeter, area, circumference, surface area, and volume to explore real world problems.

## **ACCELERATED GEOMETRY**

#332

NCAA Approved

In this course, students will develop reasoning and problem-solving skills as they study topics including congruence and similarity, properties of lines, triangles, quadrilaterals, and circles. Students will use skills from algebra as well to solve problems by using length, perimeter, area, circumference, surface area, and volume to explore real world problems. Students that have not passed the Algebra 1 Keystone exam must enroll or have taken a semester of Keys to Your Math Future.

## **HONORS GEOMETRY**

#332

NCAA Approved

Rigorous and fast paced, this course is designed for a future AP Calculus student. Topics include essentials of geometry, reasoning and proof, parallel and perpendicular lines, congruent triangles, triangle relationships, similarity, right triangles and trigonometry, quadrilaterals, transformation properties, circle properties, measuring length and area, surface area, and volume of solids. Students that have not passed the Algebra 1 Keystone exam must enroll or have taken a semester of Keys to Your Math Future.

## **APPLIED ALGEBRA II**

#328                      NCAA Approved

Students enrolled in this course will study functions including but not limited to linear, quadratic, cubic quartic, piecewise, exponential, logarithmic, radical, and rational will be studied. Function operations and transformations, solving equations, and the use of the graphing calculator provide a common thread to link the units of study.

## **ACCELERATED ALGEBRA II**

#333                      NCAA Approved

Students enrolled in this course are expected to apply prior knowledge to enhance current algebra practices. The study of functions including but not limited to linear, quadratic, cubic quartic, piecewise, exponential, logarithmic, radical, and rational will be studied. Function operations and transformations, solving equations, and the use of the graphing calculator provide a common thread to link the units of study. Students that have not passed the Algebra 1 Keystone exam must enroll or have taken a semester of Keys to Your Math Future.

## **HONORS ALGEBRA II**

#319                      NCAA Approved

This course is a rigorous continuation of Algebra 1 and is designed for students who have demonstrated an advanced level of achievement in mathematics. Algebra 2 is the study of functions: linear, quadratic, cubic, piecewise, exponential, logarithmic, radical, and rational. Function operations and transformations provide a common thread to link the units of study. The curriculum is distinguished by a difference in pace, rigor, and the quality of work, not merely the quantity. Students that have not passed the Algebra 1 Keystone exam must enroll or have taken a semester of Keys to Your Math Future. This course is intended for students to take AP Calculus AB as juniors.

## **ACCELERATED TRIGONOMETRY AND PRE-CALCULUS**

#334                      NCAA Approved

This course is designed to prepare a student for the study of calculus. The course begins with a study of trigonometry, including right triangles, graphing periodic functions, proving identities, and solving trigonometric equations. The second semester involves the deeper understanding of functions and their applications designed to increase students' knowledge of algebra.

## **AP PRECALCULUS**

#358                      NCAA Approved

This course assesses student mastery of skills and concepts required for success in AB Calculus. A large portion of the course is devoted to a student's understanding of functions and their properties including linear, quadratic, absolute value, square root, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise defined. Students will represent these functions symbolically, graphically, verbally, or in tabular form. A solid understanding of these types of functions is at the core of all precalculus courses and will lead into an introduction of calculus before the end of the school year.

### **COLLEGE ALGEBRA (semester)**

#339

NCAA Approved

This course is an introductory level college algebra course that students usually take their first year at a two- or four-year college. Topics covered include but are not limited to foundations of algebra, Transformation of Functions, Systems of Equations, Quadratic Functions, Conic Sections, Exponential & Log Functions, Sequences, Series, and the Binomial Theorem. This class may be taken for college credits through the College in High School Program.

### **FINANCIAL ALGEBRA (semester)**

#378

This course is an introductory level college algebra course that students usually take their first year at a two- or four-year college. Topics covered include but are not limited to Fundamentals of Algebra and Taxes, Linear Equations and Checking, Systems of Equations and Savings, Systems of Inequalities and Budgeting, Exponential & Log Functions and Investing, Function Modeling and Credit. Students cannot receive credit for both College and Financial Algebra and can only take one of these two courses. This class may be taken for college credits through the College in High School Program.

### **COLLEGE STATISTICS (semester)**

#355

NCAA Approved

This course is an introductory level college statistics course that students usually take during their second year at a two- or four-year college. Students will study experimental design, describing data graphically and numerically, probability, sampling distributions, normal distribution, the central limit theorem, and statistical inference. This class may be taken for college credits through the College in High School Program.

### **STATISTICS and SPORTS (semester)**

#368

This course is an introductory level college statistics course that students usually take during their second year at a two- or four-year college. Students will design experiments and observational studies and describe sports data graphically and numerically. Students will study probability, sampling, and normal distributions of sports data. They will apply the central limit theorem, and statistical inference, all in a sports context. This class may be taken for college credits through the College in High School Program.

### **BUSINESS MATH**

#660

This course will focus on using mathematics in financial planning for the future. Topics include discretionary spending, banking, credit, auto and home ownership, employment, taxes, investments, entrepreneurship, retirement, and budgeting.

## **CHS BUSINESS CALCULUS**

#365

This course is recommended for students who have interests in business, economics, and other social sciences. The concepts taught in this course include a review of precalculus topics, limits, differentiation, integration, and problem solving with an emphasis on applications in the social sciences- especially business and economics. This class may be taken for college credits through the College in High School Program.

## **AP STATISTICS**

#316      NCAA Approved

AP Statistics is an introductory college-level statistics course that introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students cultivate their understanding of statistics using technology, investigations, problem solving, and writing as they explore concepts like variation and distribution, patterns and uncertainty, and data-based predictions, decisions, and conclusions. Students can earn college credit for this course with a qualifying score on the AP exam or for college credits through the College in High School Program.

## **AP CALCULUS AB**

#315      NCAA Approved

AP Calculus AB is an introductory college-level calculus course. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and the analysis of functions. All students enrolled in this course are expected to take the AP Calculus AB exam and can earn college credit with a qualifying score.

## **AP CALCULUS BC**

#345      NCAA Approved

AP Calculus BC is an introductory college-level calculus course. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and the analysis of functions. All students enrolled in this course are expected to take the AP Calculus BC exam and can earn college credit with a qualifying score.

## SCIENCE COURSES

- All science course offerings are aligned with the Pennsylvania Science, Technology and Engineering Standards.
- Students must complete a minimum of 4 credits of science to graduate.
- All students are required to take at least one course in each of the natural sciences: biology, chemistry, and physics.
- All biology courses will prepare students for the PA Keystone Exam in Biology, given in the Spring of 9th Grade.
- Students are encouraged to check with prospective colleges to ensure that appropriate courses are selected for potential college majors.
- Medical career paths would benefit from AP Courses in Biology and Chemistry as well as Organic Chemistry and Human Anatomy.
- Engineering career paths would benefit from AP Courses in Physics.
- AP courses fall under the AP contract (Appendix C)

9th Grade	10th Grade	11th Grade	12th Grade
<b>Applied Biology</b>	<b>Applied Chemistry</b>	<b>Applied Physics</b>	<b>Applied Environmental Science</b>
<b>Accelerated Biology</b>	<b>Accelerated Chemistry</b>	<b>Accelerated Physics</b>  <b>May Take Concurrently:</b> <b>Accel. Chemistry 2</b> <b>Organic Chemistry</b> <b>Human Anatomy</b>	<b>Select 1 or More:</b> <b>AP Biology</b> <b>AP Chemistry</b> <b>AP Physics 1</b> <b>AP Envir. Science</b> <b>Accel. Chemistry 2</b> <b>Organic Chemistry</b> <b>Human Anatomy</b>
<b>Honors Biology</b>	<b>Honors Chemistry</b>  <b>May Take Concurrently:</b> <b>AP Physics 1 if concurrently enrolled in</b>	<b>AP Physics 1 or Accelerated Physics</b>  <b>May Take Concurrently:</b> <b>AP Biology</b> <b>AP Chemistry</b>	<b>Select 1 or More:</b> <b>AP Physics 1</b> <b>AP Biology</b> <b>AP Chemistry</b> <b>AP Envir. Science</b> <b>AP Physics 2</b> <b>Accel. Chemistry</b>



	<b>Algebra II</b>	<b>AP Physics 2</b> <b>Accel. Chemistry</b> <b>2</b> <b>Organic</b> <b>Chemistry</b> <b>Human Anatomy</b>	<b>2</b> <b>Organic</b> <b>Chemistry</b> <b>Human Anatomy</b>
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### **APPLIED BIOLOGY**

#430      Grade 9      NCAA Approved

This course uses a hands-on approach to teach the fundamental concepts of biology in preparation for post-high school academic endeavors. Topics include: basic biological principles, chemical basis for life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, theory of evolution, and ecology. This course includes integration of technology, cooperative learning projects, hands-on labs, online labs, and research. Assessment is through multiple approaches such as exams, quizzes, projects, and presentations.

### **ACCELERATED BIOLOGY**

#432      Grade 9      NCAA Approved

**Recommendation:** Successful completion of Science 8.

This course prepares students for a future academic development by providing a more in-depth, accelerated view of the world of living things. Topics covered include: basic biological principles, chemical basis for life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, theory of evolution, and ecology. This course includes integration of technology, cooperative learning, laboratory experiments, and research. Assessment is through multiple approaches such as exams, quizzes, lab work, homework, projects, and presentations.

### **HONORS BIOLOGY**

#433      Grade 9      NCAA Approved

**Recommendation:** Completion of Honors Science 8 with a minimum of a C or completion of Science 8 with a minimum of a B along with teacher recommendation.

This introductory biology course is designed for motivated students who may be interested in pursuing medical, research, or environmental careers. Honors Biology topics include: basic biological principles, chemical basis for life, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, theory of evolution, and ecology.

The two major goals of Honors Biology are to help students develop a conceptual framework for the study of biology and to gain an appreciation of science as a process. The primary emphasis of this course is the development of an understanding of biological concepts rather than memorization of facts and technical details. Four major notions are essential to this conceptual understanding. They are: a grasp of science as a process rather than as an accumulation of facts, personal experience in scientific inquiry, recognition of unifying themes that integrate the major topics of biology, and the application of biological knowledge and critical thinking to environmental and social concerns. Assessment is through multiple approaches such as written exams, lab work, homework, and class work.

## AP BIOLOGY

#446

Grades 11 or 12

NCAA Approved

**Recommendation:** Successful completion of Honors Biology or completion of Accelerated Biology with a minimum of a B average with teacher recommendation.

Students interested in STEM or medical careers are strongly encouraged to take AP Biology. Students should also inquire about the electives, Human Anatomy and Organic Chemistry, as concurrent courses with AP Biology.

This course is designed to be the equivalent of a full year college biology course including laboratory. In this rigorous college level course, living organisms are studied from the cellular, genetic, organismal, and ecological perspectives. Evolution by natural selection is one of the central ideas that ties together much of the content in the course. Topics such as gene regulation and cell communication are explored and stressed in an attempt to more deeply understand the biology of living things at a cellular level. Students will regularly work with biological models and data sets to strengthen content learned in class. Laboratory activities will allow the students to pose their own questions and design experiments related to their questions. Students will apply statistical tests to best analyze data as well.

Students who select AP Biology should be self-disciplined and of the maturity level expected for a college level course. Students who complete this course are expected to take the AP Biology Exam; students who pass this exam may earn up to 8 college credits. Assessment is through exams, laboratory work, homework, and class participation.

## APPLIED CHEMISTRY

#434

Grade 10

NCAA Approved

This course uses a hands-on approach to teach the fundamental concepts of chemistry in preparation for post-high school academic endeavors. Topics include: matter, phases, periodic table, and energy. This course includes integration of technology, cooperative learning projects, hands-on labs, online labs, and research. The skills covered during the course include the use and care of laboratory equipment, evaluation of simple equations, recording and analyzing data, and making and interpreting graphs. Assessment is through multiple approaches such as written exams, projects, lab work, homework, class participation.

## ACCELERATED CHEMISTRY

#436

Grade 10

NCAA Approved

**Recommendation:** Students must pass Accelerated Biology, complete Applied Biology with an A average, along with teacher recommendation and completion of Algebra I.

This course includes integration of technology, cooperative learning, and laboratory experiments. The course will cover the following topics: measurements, matter and energy, atomic theory and structure, periodic law, chemical bonding, chemical formulas and nomenclature, chemical equations and reactions, and stoichiometry. Applications to issues and topics from everyday life will be made while laboratory skills and cooperative skills are refined. Assessment is through exams, lab results and reports, homework, and class participation.

## HONORS CHEMISTRY

#437

Grade 10

NCAA Approved

**Recommendation:** Successful completion of Honors Biology or completion of Accelerated Biology with a minimum of a B-average, along with teacher recommendation with completion of minimum of Algebra I.

This course is a comprehensive, laboratory-oriented introduction to chemistry intended to prepare students for AP science courses. Traditional principles and applications of chemistry include concepts of matter, energy, atomic structure, chemical bonding, periodic law, compound formula writing and nomenclature, composition stoichiometry, reactions, reaction stoichiometry, and gas laws. Laboratory skills are developed for performing experiments and for analyzing data. Application of general chemical knowledge to daily living, technology, and the environment is incorporated.

This course is designed for those students who have demonstrated exceptional abilities in mathematics and science and who desire a much more rigorous approach to chemistry. Students taking this course should be prepared to work on a more independent basis and should intend to take AP Chemistry in either their junior or senior year. Students who are interested in STEM careers will benefit from this course. Technology is an integral part of this course. Assessment is through exams, lab results and reports, homework, projects, and class participation.

## ACCELERATED CHEMISTRY II

#444 Grades 11 or 12

NCAA Approved

**Recommendation:** Completion of Accelerated Chemistry or Honors Chemistry.

A student who enjoys using mathematics, who is very interested in science, and who feels it may be a major role in his/her career choice should elect this course.

This course is a second year course designed for those students who have a need for or an interest in continuing study of chemistry and will prepare students for the freshman year of college. The topics covered include gases, thermochemistry, acids and bases, equilibrium, kinetics, nuclear chemistry, and electrochemistry. The labs integrate modern technologies to collect and analyze data. Student experiments and instructor demonstrations are also included as visible applications of theories. Practical examples of these theoretical concepts being applied to everyday life are extensively used throughout the course.

This course is highly recommended for the college bound student who is planning a career in science, mathematics, medicine, engineering, or a related field.

## AP CHEMISTRY

#447 Grades 11 or 12

NCAA Approved

**Recommendation:** Successful completion of Honors Chemistry or completion of Accelerated Chemistry with a minimum of a B average with teacher recommendation along with completion of a minimum of an Algebra I course.

Students taking AP Chemistry would benefit from concurrently enrolling in Organic Chemistry. Students interested in STEM, Engineering, and Medical careers will benefit from this course.

This course is the equivalent of a full year of a college general chemistry including laboratory designed by the College Board curriculum. In this course, the student will attain a depth of understanding of the fundamentals of chemistry and a reasonable competence in dealing with chemical problems.

Success in this level of chemistry requires a high level of motivation and interest in chemistry, excellent study skills, sophisticated problem-solving skills, and a commitment to working outside of the classroom. Students who complete this course are expected to take the AP Chemistry Exam; students who pass this exam may earn up to 8 college credits. Assessment is through exams, laboratory work and reports, homework, class participation, and short projects.

### **APPLIED PHYSICS**

#435      Grade 11      NCAA Approved

This course uses a hands-on approach to teach the fundamental concepts of physics. Topics include: optics, waves, electricity, motion, and forces. This course includes integration of technology, hands-on labs, online labs, and research. The skills covered during the course include the use and care of laboratory equipment, evaluation of equations, recording and analyzing data, and making and interpreting graphs. Assessment is through multiple approaches such as written exams, projects, lab work, homework, class participation.

### **ACCELERATED PHYSICS**

#442      Grades 11      NCAA Approved

**Recommendation:** Successful completion of Accelerated Chemistry I and at least concurrently enrolled in an Algebra II mathematics course. However, a trigonometry-based mathematics course is preferred.

This course is an accelerated, comprehensive, laboratory-oriented introduction to physics. It focuses on conceptual understanding and computational problem solving using hands-on activities and includes a lab period once a week. Emphasis will be directed to the application of major principles to everyday experiences. Topics include: waves, optics, electricity, motion, forces. Laboratory experiences provide opportunities for students to engage in science practices as they conduct experiments, make predictions, collect and analyze data, apply mathematical routines, develop explanations, and communicate about their work. Assessment is through multiple approaches such as written exams, projects, lab work, homework, and class participation.

### **AP PHYSICS 1: Algebra-Based**

#438      Grades 10, 11 or 12      NCAA Approved

**Recommendation:** Students may select to concurrently enroll in this course in 10th grade with Honors Chemistry. This course is highly recommended for all students preparing to go to college in the fields of science, engineering, math, and medicine. Students must be concurrently enrolled in Algebra II or have completed the course. However, a trigonometry-based mathematics course is preferred.

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore topics including: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion;

torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sound. Inquiry-based laboratory experiences provide opportunities for students to engage in science practices as they design plans for experiments, make predictions, collect and analyze data, apply mathematical routines, develop explanations, and communicate about their work.

Students who select AP Physics 1 should be self-disciplined and of the maturity level expected for a college level course. Students who complete this course are expected to take the AP Physics 1 Exam. Assessment is through exams, laboratory work and reports, homework, class participation, and short projects.

### **AP PHYSICS 2: Algebra-Based**

#439      Grades 11 or 12      NCAA Approved

**Prerequisite:** Successful completion of AP Physics 1 or an A average in Accelerated Physics.

Students must be concurrently enrolled in Algebra II or have completed the course. However, a trigonometry-based mathematics course is preferred. This course is highly recommended for all students preparing to go to college in the fields of science, engineering, math, and medicine.

AP Physics 2 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: fluids; thermodynamics; electrical force, field, and potential; electric circuits; magnetism and electromagnetic induction; geometric and physical optics; and quantum, atomic, and nuclear physics. Inquiry-based laboratory experiences provide opportunities for students to engage in science practices as they design plans for experiments, make predictions, collect and analyze data, apply mathematical routines, develop explanations, and communicate about their work.

Students who select AP Physics 2 should be self-disciplined and of the maturity level expected for a college level course. Students who complete this course are expected to take the AP Physics 2 Exam; students who pass this exam may earn up to 4 college credits. Assessment is through exams, laboratory work and reports, homework, class participation, and short projects.

### **APPLIED ENVIRONMENTAL SCIENCE**

#448      Grade 12      NCAA Approved

This course examines the delicate balance that exists in the ecology of our planet. Environmental science is a multidisciplinary field that integrates physical, biological, and information sciences to the study of the environment and the solutions to environmental problems. The major units studied include population dynamics, overpopulation, pollution, alternative energy, climate change, destruction of rainforests, and endangered species. Environmental Science incorporates the social sciences for understanding human relationships, perceptions, and policies toward the environment.

Issues such as the understanding of earth processes, evaluating alternative energy systems, pollution control and mitigation, natural resource management, and the effects of global climate change will be examined. Assessment is through unit exams, quizzes, class projects, and class participation.

### **AP ENVIRONMENTAL SCIENCE**

#460      Grade 12      NCAA Approved

**Prerequisite:** Students must have successfully completed at least one full year of biology, chemistry, and physics in order to take this course.

**Recommendation:** Students are encouraged to dual-enroll in science classes senior year.

AP Environmental Science is an introductory course equivalent to a semester of college environmental science. The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

Students who select AP Environmental Science should be self-disciplined and of the maturity level expected for a college level course. Students who complete this course are expected to take the AP Environmental Science Exam; students who pass this exam may earn up to 3 college credits. Assessment is through exams, laboratory work and reports, homework, class participation, and short projects.

### **Science Electives**

#### **HUMAN ANATOMY**

#449                      Grades 11 or 12    NCAA Approved

**Recommendation:** Successful completion of a minimum of a biology and chemistry course.

Students interested in medical careers will benefit from this course.

Human Anatomy will enable students to develop an understanding of the relationships between the structures and functions of the human body. Topics include the basic organization of the body and major body systems along with the impact of diseases on certain systems. Students will also learn the mechanisms for maintaining homeostasis within the human body. This course will involve laboratory activities, textbook materials, models, diagrams, and clinical studies. This course is designed for college preparation especially for biology and health career majors. Assessment is through multiple approaches such as written exams, lab work, homework, and class participation.

#### **ORGANIC CHEMISTRY**

#450                      Grades 11 or 12    NCAA Approved

**Recommendation:** Successful completion of a minimum of a biology and chemistry course.

Students interested in STEM, engineering, and medical fields will benefit from this course. Students enrolled in AP Chemistry are strongly encouraged to take this course concurrently.

This course is designed to teach the basic nomenclature, structures, reactions and properties of aliphatic and aromatic hydrocarbons and their derivatives, including alcohols, esters, ethers, aldehydes, ketones, amines, and amides. Techniques of purification, separation, and synthesis are practiced in the laboratory. The student will evaluate the impact of organic compounds on our standard of living and the environment. This course is intended for students planning to major in biology, chemistry, chemical engineering, pharmacy, and certain medical fields. Assessment is through exams, labs, and class participation.

### **FORENSIC SCIENCE (semester)**

#451    Grades 11 or 12 NCAA Approved

This course will examine the unifying principles of forensic science, discuss the rooting of forensic science in the pure sciences, and introduce the unique ways in which a forensic scientist must think. Students will work through interactive exercises and discuss various scenarios. Topics covered include blood analysis, hair analysis, fiber comparisons, paints, glass compositions, and soil comparisons. This course involves all areas of science including biology, anatomy, chemistry, physics, and earth science with an emphasis in complex reasoning and critical thinking. In addition, students must incorporate the use of technology, communication skills, language arts, art, family and consumer science, mathematics, and social studies. Assessment is through exams, homework, class participation, and performance assessments with students working in teams to solve crimes using scientific knowledge and reasoning.

### **ECOLOGY (semester)**

#456    Grades 11 or 12    NCAA Approved

This course is a semester that examines the balance that exists in the ecology of our planet. The major units studied include basic ecological principles, six terrestrial biomes of the world, human ecology including overpopulation, pollution, alternative energy, climate change, destruction of rainforests, and endangered species. Assessment is through unit exams, class projects, and class participation.

## **WORLD LANGUAGE COURSES**

World Languages offerings include French and Spanish. Students will follow a sequential program in each language. The goal of all language courses is for students to achieve communicative proficiency. The World Language teachers strongly encourage students to commit themselves to a full program, studying one language for four years between Grades 8 and 12, and to elect a second language when scheduling allows. It is highly recommended for the college-bound student or anyone wishing to pursue further education to have at least two years of a world language. AP courses fall under the AP contract (Appendix C)

French 1  
French 2  
French 3  
AP French Language and Culture

Spanish 1  
Spanish 2  
Spanish 3  
AP Spanish Language and Culture

### **FRENCH 1**

#501            Grades 9, 10, 11, or 12            NCAA Approved

French 1 is an introduction to French and focuses on the four key areas of world language study: listening, speaking, reading, and writing. The primary purpose of the course is to prepare students to be college-ready, well-rounded global citizens who can communicate effectively in French and are aware of the cultural influences of the French heritage at home and abroad.

Each lesson introduces new vocabulary and grammar concepts through reading and listening comprehension, speaking, and writing activities. Simple grammatical structures are practiced in innovative and interesting ways with a variety of learning styles in mind. Various forms of assessments will monitor the language progression. Students selecting this course should have a minimum of a C grade in their English class.

### **FRENCH 2**

#502            Grades 9, 10, 11, or 12            NCAA Approved

French 2 continues the study of French by expanding meaningful expression in both speaking and writing. The primary purpose of the course is to prepare students to be college-ready, well-rounded global citizens who can communicate effectively in French and are aware of the cultural influences of French heritage at home and abroad. Each unit consists of new vocabulary themes and grammar concepts, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices that reinforce vocabulary and grammar. Various forms of assessments will monitor the language progression. Students selecting this course should have attained at least a C grade in French 1.



### **FRENCH 3**

#503      Grades 10, 11 or 12      NCAA Approved

French III provides a greater emphasis on the French language, grammar, and culture. The primary purpose of the course is to prepare students to be college-ready, well-rounded global citizens who can communicate effectively in French. This course is a continuation of the beginning level courses and is designed to help the student continue learning the French language. In this course, students practice listening, speaking, reading, and writing skills. Throughout the course, students will expand their vocabulary and use of increasingly complex grammatical structures are introduced and practiced in innovative and interesting ways. Students learn about the culture, people, geographical locations, and histories of the French-speaking world. Various forms of assessments will monitor the language progression. Students selecting this course should have attained at least a C in French 2

### **AP FRENCH LANGUAGE AND CULTURE**

#505      Grades 11 or 12      NCAA Approved

The AP French Language and Culture is designed to lead students toward mastery of all aspects of the language equal to an intermediate college course in composition and conversation. This class is noticeably more rigorous both in and out of class than the other levels. Students cultivate their understanding of the French language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges.

### **SPANISH 1**

#521      Grades 9, 10, 11, or 12      NCAA Approved

This course is designed to enhance students' ability to learn a world language. Students will be expected to use the target language extensively in class to enhance their communicative skills. Students will develop their listening, speaking, reading, and writing skills through oral and written presentations. Short cultural readings will provide authentic insight into Spanish culture worldwide. Students will have the opportunity to work with technology in an interactive manner. In addition to classroom participation, students will be assessed through regularly assigned homework, quizzes, projects, and a comprehensive end of year test. It is recommended that students selecting this course should have a minimum of a C average in their English course from the previous year.

### **SPANISH 2**

#522      Grades 9, 10, 11, or 12      NCAA Approved

Spanish 2 continues the study of Spanish by expanding meaningful expression in both speaking and writing. Each unit consists of new vocabulary topics and grammatical concepts, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices that reinforce vocabulary and grammar. This course includes a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students are actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries. Various forms of assessments will monitor the language progression.

### **SPANISH 3**

#523

Grades 10, 11 or 12

NCAA Approved

Spanish 3 provides a greater emphasis on the Spanish language, grammar, and culture. The primary purpose of the course is to prepare students to be college-ready, well-rounded global citizens who can communicate effectively in Spanish. This course is a continuation of the beginning level courses and is designed to help the student continue learning the Spanish language. In this course, students practice listening, speaking, reading, and writing skills. Throughout the course, students will expand their vocabulary and use of increasingly complex grammatical structures are introduced and practiced in innovative and interesting ways. Students learn about the culture, people, geographical locations, and histories of the Spanish -speaking world. Various forms of assessments will monitor the language progression. Students selecting this course should have attained at least a C in Spanish 2

### **AP SPANISH LANGUAGE AND CULTURE**

#525

Grades 11 or 12

NCAA Approved

The AP Spanish Language and Culture course is designed to lead students toward mastery of all aspects of the language equal to an intermediate college course in composition and conversation. This class is noticeably more rigorous both in and out of class than the other levels. Students cultivate their understanding of Spanish language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges.

## **BUSINESS EDUCATION COURSES**

The courses in the Business Education Department will fulfill elective credit requirements.

Accounting 1  
Accounting 2

Business Publications (semester)  
Web Design (semester)

Money Matters - *Required Course under Elective Credits* (semester)  
Entrepreneurship (semester)  
Introduction to Business and Marketing (semester)

### **ACCOUNTING I**

#601                      Grades 10, 11, or 12

This course provides students with skills useful in life related to banking, credit, taxes, invoices, and payroll. Students are introduced to basic accounting principles for a service business organized as a proprietorship. Students will learn the basics of completing an accounting cycle and all of the financial statements that must be completed according to generally accepted Accounting principles. Sophomores wanting to take this course should be good academic students with an overall C average or better. Grades are based on homework, class work, and chapter tests.

### **ACCOUNTING 2**

#602                      Grades 11 or 12

This course is for students who have career objectives in Accounting or any other business fields such as finance, economics, marketing, financial planning, or management. The basic principles of Accounting 1 are reviewed and applied to a merchandising business organized as a partnership. A full accounting cycle will be studied with the new addition of payroll, taxes as related to payroll, and merchandise. Automated Accounting Software is utilized to reinforce concepts and introduce how their basic knowledge of manual accounting is enhanced by the use of the computer and accounting software. Grades are based on homework, class work, and chapter tests.

**\*Prerequisite: Students must have completed Accounting 1 with a C or better**

### **BUSINESS PUBLICATIONS, formerly Graphic Design (semester)**

#643                      Grades 9, 10, 11, or 12

Business Publications is an applications software course that allows student to utilize their creativity skills to create professional-quality business publications for print using advanced layout and design techniques. A great emphasis is placed on the concepts and procedures of graphic design for integrating text, graphics, stationery, fact sheets, newsletters, advertisements, posters, brochures, and much more. This course is highly recommended for students who have an interest in the technology or business fields, specifically to utilize their creative skills through general layout and design of documents.

## **WEB DESIGN (semester)**

#649 Grades 9, 10, 11, or 12

The students will create web pages, add links and images, insert tables, and create templates and CSS styles using Dreamweaver CC. The students will also learn to create graphics and text, create custom animation, and create buttons to help customize web pages with a purpose and a goal for a specific target audience using design basics and a navigation map.

## **MONEY MATTERS (semester) (Required Course under Elective Credits)**

#662 Grades 10 or 11

Have you ever wondered what your life will be like when you graduate high school? You have probably thought about the bigger picture such as getting a job, going to college, joining the military, renting an apartment or buying a house, and being able to make enough money to not only buy the things you need but also the things that you want. Money Matters is designed to provide students with the tools needed to understand some of the biggest financial decisions that they will have to make throughout their lives. From goal setting and formulating a financial plan to choosing the right investment and insurance policy, students will develop valuable lifelong skills for making career decisions, managing money, and creating a secure financial future into retirement. This course is intended to help students prepare for a lifetime of financial literacy, and is designed for students who want to get the most from their money. Managing money is a very important skill set for all young adults and this course will help them succeed.

## **ENTREPRENEURSHIP (semester)**

#664 Grades 10, 11, or 12

One of the greatest privileges afforded by the U.S. economic system is the ability for any U.S. citizen to own and operate his or her own business known as Free Enterprise. In Entrepreneurship you will assume the role of a business owner. The form of business ownership you will assume will be that of a sole proprietorship. A sole proprietorship is a business owned and operated by one person. As a business owner in this simulation you will be required to choose a business to own and operate and complete a series of individual projects to successfully create a comprehensive business plan for your chosen business. This is an excellent course for students who think they would like to start or manage a business, as well as any college bound student to understand the workings of business as an employee or a consumer.

## **INTRODUCTION TO BUSINESS AND MARKETING (semester)**

#666 Grades 10, 11, or 12

Marketing is a part of everyone's daily lives, even if we are unaware of it. From billboards along the interstate to email messages in our inboxes, marketing surrounds us. Possessing a basic understanding of how marketing works can help you make informed choices as a consumer, as well as plan for future careers in business and marketing. Introduction to Business and Marketing provides students with an overview of course concepts that are valuable and impact the world of marketing. The course provides real world and current examples of relevant companies and organizations. The course includes hands on creation of a marketing plan which can be carried over into the *Entrepreneurship Class* in a subsequent semester, although it does not need to be taken in any particular order. There is a

companion website that is used throughout, which enables the students to prepare from a remote location.

## **FAMILY AND CONSUMER SCIENCES COURSES**

The courses in Family and Consumer Sciences will fulfill Elective Credit requirements.

Culinary Arts I (semester)

Culinary Arts II (semester)

Child Development (year)

Advanced Child Development (year; double period)

Bake Shop (semester)

Sports Nutrition (semester)

Decorating Sense (semester)

Fashion (semester)

### **CULINARY ARTS I (semester) Formerly Foods I**

#701

Grades 9, 10, 11, or 12

This class is a semester course for any student interested in learning the basics of food preparation and kitchen management which are necessary life skills. Students will prepare recipes using various cooking techniques and will work in teams practicing cooperation skills including communication, decision making, problem solving, and conflict management. Particular emphasis will be placed on learning the nutritional value in everyday foods and how good food choices make a healthier lifestyle. Topics include kitchen equipment and utensils, sanitation practices, knife skills, dairy products, fruits and vegetables, grains, quick breads, and eggs.

### **CULINARY ARTS II (semester) Formerly Foods II**

#702

Grades 9, 10, 11, or 12

**Prerequisite:** Successful completion of Culinary Arts I

This class is a semester course for the student who wants to further their skills in food preparation and nutritious meal planning. The class will consist of reinforcement of the skills learned in Culinary Arts I with an emphasis on more challenging cooking skills. Meats, yeast breads, soups, casseroles, pastry, and desserts are some of the units that will be covered in this class. Students will also have the opportunity to prepare recipes of their choosing for other labs, in addition to practicing budgeting and meal planning skills.

### **BAKE SHOP (semester)**

#709

Grades 9, 10, 11, or 12

Bake Shop is a competition-based course in which groups will write recipes and produce baked goods based on various themes. Groups will compete against one another and present dishes to a panel of judges upon completion. Students will create various treats throughout the semester including, but not limited to, quick breads, pies, cookies, cupcakes, and candies.

## **SPORTS NUTRITION (semester)**

#703

Grades 9, 10, 11, or 12

This course will give students a greater understanding of nutritional needs as they pertain to sports and fitness. Students will analyze their current eating habits, formulate a plan based on their calculated needs, understand the different nutrients our bodies need, and design a healthy eating plan. Students will spend time in the culinary arts kitchen preparing and modifying recipes covering meals, pre- and post-workout fuel, snacks, and beverages. Participating in a school sport is not a requirement of this class. We welcome all students interested in learning more about maintaining healthy weight, gaining muscle mass, losing body fat, or staying hydrated.

## **FASHION (semester) formerly Fashion, Fad, and Fantasy**

#770 Grades 9, 10, 11, or 12

Are you a trend-setter or do you follow a lead? When does a fad become fashionable? How can you utilize fantasy and imagination to fuel creativity and creation? Co-taught by an Art and Family and Consumer Science teacher, this course will focus on the elements of design and basic embroidery and sewing techniques to create original fashion items.

One day, you will look at old pictures of yourself and wonder, why in the world did I wear that clothing, drive that car or think that chevron print was cool? What was I thinking?

Believe it or not, older generations probably wore clothing and drove cars with similar styles. Ask yourself, what is fashionable and who decides what is popular?

Whether you consider yourself trendy or not, this is your chance to share your energy and vision.

## **DECORATING SENSE (semester)**

#690

Grades 9, 10, 11, or 12

If you watch HGTV and other decorating programs this course is for you! Decorating Sense is a semester course designed for any student interested in learning the basic fundamentals of interior design. Students will learn the elements and principles of design. They will apply this knowledge in several projects both assigned and self-chosen.

## **CHILD DEVELOPMENT**

#705

Grades 10, 11, or 12

Child Development is a year-long, one period course designed for any student interested in having their own children in the future or considering a career working with children. Prenatal health and development will be discussed, as well as the physical, cognitive, and social/emotional development of children through age five. The first semester will also include learning the skills and techniques needed for participating in the Keystone Oaks Nursery School program. Teaching techniques are demonstrated and practiced, and educational theories are discussed. Students will also be required to complete the Real Care Baby project in which they will take care of a computerized baby. During the second semester, students will apply their knowledge of planning, preparing, and carrying out lesson plans while participating in the nursery school program. Students will supervise and teach children between the ages of 3 ½ and 5 on Mondays, Wednesdays, and Fridays for approximately 12 weeks.

## ADVANCED CHILD DEVELOPMENT

#706

Grades 11-12

**Prerequisite:** Successful completion of Child Development

Advanced Child Development is a year-long, double-period course designed to provide students with the skills necessary for career planning in one of the many fields related to child care and development. The class is involved in the operation of the Keystone Oaks Nursery School program, supervising and teaching children between the ages of 3 ½ to 5 years of age. Two twelve-week sessions meeting Mondays, Wednesdays, and Fridays will be offered (one session per semester). The high school students plan, prepare, and coordinate all of the themes and lessons for the nursery school children. Both in-school and outside field trips are planned to help enhance the class for both the nursery school and high school students.

This course is an excellent continuation of Child Development for any student interested in early childhood education, elementary education, day care employment, and careers involving children. If a student has taken Child Development as a sophomore, they may elect to take Advanced Child Development during both their junior and senior years.

Note: Offering and delivery of courses 705 and 706 may be adjusted depending on whether the nursery school program can be offered, due to the status of COVID-19 restrictions.



## **COMPUTER AND DATA SCIENCE AND TECHNOLOGY EDUCATION COURSES**

The class of 2024 and beyond must earn a 0.5 credit in Computer Science and 8 credits of electives to meet graduation requirements. Students will have the ability to earn college credit by receiving a qualifying score on the AP exam in Computer Science Principles or Computer Science A or by receiving a “C” or better in College in the High school courses in Data Science and/or Computer Science. AP courses fall under the AP contract (Appendix C)

In all cases, students should seek the recommendation of a teacher, the Computer and Data Science and Technology Education department/curriculum leader and/or a counselor if they have questions regarding their schedule.

## **Keystone Oaks High School**

### **STEM ACADEMY**

The 2023/2024 school year will be the inauguration of the Keystone Oaks High School STEM Academy. Through a partnership with Robert Morris University, high school students will be able to enroll in courses throughout their high school years that will also count towards college level credits, which will be awarded by Robert Morris University.

The STEM Academy is designed as an Early College in High School program that is taught by Keystone Oaks teachers who have formed partnerships with faculty members at Robert Morris University in the Pre-Engineering and Mathematics Departments. Credits that are earned may be applied to entrance into Robert Morris University, upon graduation from Keystone Oaks, or to another college/university of which Robert Morris University has an articulation agreement.

For more details, students should contact Mr. Kevin Gallagher at [gallagher@kosd.org](mailto:gallagher@kosd.org).

The following Keystone Oaks High School Courses have been approved by Robert Morris University for college level credit:

**Computer Science:** At least 1 year of programming. All courses count towards the one-year requirement, but must include either Robotics (C++), AP CS A (Java) and/or Data Science with Python

**Technology Education:** CADD II

**Engineering:** Engineering and Design

**Mathematics:** AP, Honors, or Accelerated Trigonometry and Pre-Calculus

**One additional course:** AP or Honors Calculus AB or BC, AP or College Statistics, or an additional programming course including Robotics (C++), AP CS A (Java) or Data Science.

Students who minimally complete the above requirements will receive discounted credit costs and other benefits including, but not limited to a trip to RMU at the beginning of each semester they are enrolled in the program. Students may choose to take these courses for college credit “ala carte”, but are not eligible

Full List of Department courses:

Computer Science Discoveries (semester)  
 AP Computer Science Principles  
 AP Computer Science A  
 CHS Data Science Using Python (semester)  
 CHS Data Science- Using “R” (semester)  
 Accelerated Technology Education (semester)  
 Manufacturing Technologies (semester)  
 Accelerated Manufacturing Technologies (semester)  
 Engineering and Design  
 CADD I (Computer Aided Drafting and Design) (semester)  
 CADD II (Computer Aided Drafting and Design) (semester)  
 Mobile APP Design (semester)  
 Game Design with Unity (semester)  
 Virtual Reality with Unity (semester)  
 Robotics  
 Competitive Robotics

### Some Example Course Pairings

**These would be recommended, not required. Students can personalize their learning as needed.**

Course 1	Course 2	Course 3	Course 4
Accelerated Technology Education	Manufacturing Technologies	Manufacturing Technologies II	Engineering and Design
CADD I	CADD II	Engineering and Design	
CS Discoveries	AP Computer Science Principles	AP Computer Science A	
CS Discoveries	Data Science with Python	Data Science with R	AP Statistics
CS Discoveries	Mobile App Design	Game Design	Virtual Reality
CS Discoveries	Robotics	Competitive Robotics	

### COMPUTER SCIENCE DISCOVERIES (semester)

#350

NCAA Approved

Computer Science Discoveries is an introductory computer science course mapped to CSTA standards. The course takes a wide lens on computer science by covering topics such as problem solving, programming, user centered design, and data, while inspiring students as they build their own websites, apps, animations, games.

## **AP COMPUTER SCIENCE PRINCIPLES**

#353

NCAA Approved

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. Students can earn college credit for this course with a qualifying score on the AP exam or a “C” or better in the College in High School Program.

## **AP COMPUTER SCIENCE A**

#356

NCAA Approved

AP Computer Science A is an introductory college-level computer science course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. Students can earn college credit for this course with a qualifying score on the AP exam or a “C” or better in the College in High School Program.

## **CHS DATA SCIENCE USING PYTHON (semester)**

#370

This semester course is available to all students. Python is a general-purpose programming language that is becoming ever more popular for data science. Companies worldwide are using Python to harvest insights from their data and gain a competitive edge. Unlike other Python tutorials, this course focuses on Python specifically for data science. In this course, you will learn about powerful ways to store and manipulate data and helpful data science tools to begin conducting your own analyses. A culminating final project will be a large portion of the final grade with students having the choice to submit their project in the Data Jam Competition sponsored by Pittsburgh Data Works. Students may choose to take this for college credit through the College in High School Program.

## **CHS DATA SCIENCE USING “R” (semester)**

#808

This semester course is available to all students. This course introduces students to R, a widely used statistical programming language. Students will learn to manipulate data objects, produce graphics, read in tabular datasets, and generate reproducible reports aggregating data into summary tables and appropriate visualizations. Students may choose to take this for college credit through the College in High School Program.

## **ACCELERATED TECHNOLOGY EDUCATION (semester)**

#721

Accelerated Technology Education is a hands-on activity-based course that explores the technological systems of communication, transportation, production, and manufacturing fields of study. Students will work independently and within teams to design hands-on solutions to a variety of problems using sketching and industry standard 3-D design, Laser engraver/3D printer technology, Pen Lathe tech, and modeling software. The structured activities and open-ended design projects will help students develop planning, documentation, communication, career preparation, and other professional skills. The student run EdCorp will create a business plan, advertise and promote, produce and sell products, interact with real clients, and create and manage an ecommerce website, along with other aspects of the entrepreneurship process.

## **MANUFACTURING TECHNOLOGIES (semester)**

#720

Manufacturing Technologies is a semester course designed to introduce students to the technology laboratory providing an in-depth introduction to the proper and safe ways to use a variety of tools, technologies, machines, materials, and processes found in skilled trades, manufacturing, and 21<sup>st</sup> century careers. Lessons are designed to prepare students with lifelong skills and knowledge to solve real world problems and be successful, contributing citizens. Students will gain practical and apply accumulated knowledge, along with science, technology, engineering, and math (STEM) concepts to create, design, and build a variety of teacher assigned, as well as self-selected projects with teacher guidance and supervision. Although most projects focus on wood tools, machines, and manufacturing, other materials and technologies including plastics, metals, coatings, CNC, CAD, and Laser Engraving are explored. Skills and information learned in Manufacturing Technologies will prepare and are needed for those planning to take the class of Engineering and Design. Students enrolled in Manufacturing Technologies also have opportunities to apply their skills and knowledge by helping with stage set design, community projects, and the Technology Education student run Educational Corporation (EdCorp).

## **MANUFACTURING TECHNOLOGIES 2 (semester)**

# 723

Accelerated Manufacturing Technologies is a semester course designed to expand on student's knowledge and skills learned from Manufacturing Technologies and includes an in-depth review of the proper and safe ways to use a variety of tools, technologies, machines, materials, and processes found in skilled trades, manufacturing, and 21<sup>st</sup> century careers. Lessons are designed to prepare students with lifelong skills and knowledge to solve real world problems and be successful, contributing citizens. Students will enhance and apply accumulated knowledge, STEM concepts to create, design, and build a variety of advanced teacher assigned, as well as self-selected projects with teacher guidance and supervision. Advanced and more complex techniques, machines, tools, materials and equipment will be used including those of wood tools, and machines, plastics, metals, welding, coatings, CNC, CAD, and Laser Engraving are explored. Skills and information learned in Accelerated Manufacturing Technologies will prepare and are needed for those planning to take the class of Engineering and Design. Students enrolled in Accelerated Manufacturing Technologies also have opportunities to apply their skills and knowledge by helping with stage set design, community projects, and the Technology Education student run Educational Corporation (EdCorp).

## **ENGINEERING AND DESIGN**

#722

Engineering and Design is a yearlong course intended for students to enhance and apply the skills, tools, technologies, machines, materials, processes, and knowledge gained throughout Technology Education to create individual, team, and/or teacher selected design projects. This course is designed to engage students in the engineering design process, applying science, technology, engineering, and math concepts (STEM) to research, and develop detailed design plans in order to create design projects. Students have access and are encouraged to utilize a variety of tools, technologies, materials, and processes both available in class and some that students may need to provide on their own. Lessons and project requirements are developed for those students interested in an accelerated opportunity to further enhance knowledge and skills needed to be better prepared with lifelong skills and knowledge to solve real world problems and for those interested in pursuing skilled trades, manufacturing, and 21<sup>st</sup> century careers. Students enrolled in Engineering and Design also have opportunities to apply their skills and knowledge by helping with stage set design, community projects, and the Technology Education student run Educational Corporation (EdCorp).

**Recommendation:** Successful completion of Manufacturing Technologies

### **CADD I (Computer Aided Drafting and Design) (semester)**

#250

This course provides students with a broad introduction into 2-dimensional and 3-dimensional Computer-Aided Design (CAD) and modeling with a focus on mechanical applications. Students will learn how to use industry-leading CAD software programs (Autodesk AutoCAD) to model mechanical projects, and then create and distribute basic, industry-standard mechanical drawings.

### **CADD II (Computer Aided Drafting and Design) (semester)**

#723

This course will introduce three areas of computer aided drafting and design (CADD). First, Basic computer hardware, software, and operating systems will be discussed, including two-dimensional CADD mechanical drawing creation and editing techniques. Secondly, this course will apply architectural drafting practices to the CADD environment. Two-dimensional site plans will be developed and discussed. Lastly, this course will cover 3D modeling in Autodesk Inventor and 3DS max. The students will then create working drawings and 3D printing files. Post-Secondary goals for CADD can include any type of trades, drafting degree with emphasis in mechanical or architectural, or degree in engineering.

### **MOBILE APP DESIGN (semester)**

#621

Mobile applications are becoming increasingly important to our consumption of media, news, social interaction, and learning. In this course, students learn how to create mobile apps, build applications to run on their own smartphones, and create an app to solve a specific problem.

### **GAME DESIGN (Unity) (semester)**

#650

Students will receive an introduction to basic programming by creating 2D and 3D executable games with the Unity™ programming language. Students will design 3D games using the same industry-

standard developing engine as professionals. You will create two fully executable games that can be played on many platforms and added to your digital portfolio.

### **VIRTUAL REALITY (semester)**

#375

In this course, students learn how to build their very own virtual reality worlds using C# and the Unity Software. Students can view their VR creations on the computer, through phones, or through a VR device such as an Oculus.

### **ROBOTICS**

#725

Students will walk through the design and build a mobile robot. These robots use motors, servos, analog sensors, and digital sensors. During this process, they will learn key STEP principles and robotics concepts. At the culmination of this class, they will learn key engineering principles. This modular and project-based curriculum teaches the design process in an engaging, hands-on manner to challenge, motivate, and inspire students. By moving through an actual engineering project, students quickly understand the relevance of what they are learning. The curriculum is created to ensure that students with varying learning styles and levels can accomplish the lesson goals. No prior robotics experience is required; beginners are able to advance sequentially through the units to gradually increase their knowledge and skill level. Post-Secondary goals for Accelerated Robotics can include a two-year degree in mechatronics, computer science, and electronics. Bachelor's degrees can include Computer Science, Mechanical Engineering, and Computer Engineering.

### **COMPETITIVE ROBOTICS**

#726 Grades 10-12

Advanced robotics is designed around any specific competition game. The lessons learned and concepts described apply equally to a robot being built for an in-classroom game to a robot being built to participate in a VEX Robotics competition. The students will design and build custom robots for the VEX Competition. Pneumatics will be introduced in advanced robotics. Students will apply the concepts of physics, engineering, and computer programming while competing. The class will be separated into robotic teams. Within these teams, there will be builders, programmers, and CADD designers. The students will collaborate on their ideas and skills to successfully complete the competition. Post-Secondary goals for Accelerated Robotics can include a two-year degree in mechatronics, computer science, and electronics. Bachelor's degrees can include Computer Science, Mechanical Engineering, and Computer Engineering.

**Pre-Requisite: Successful completion of Robotics**

## **HUMANITIES DEPARTMENT**

The courses in the Humanities Department will fulfill elective credit requirements.

### **ART**

Drawing I (semester)  
Drawing II (semester)  
Painting I (semester)  
Painting II (semester)  
Fine Arts Studio (semester)  
Fashion (semester)  
Ceramics: Wheel Throwing (year)  
Ceramics: Coil & Slab Hand Building (semester)  
Ceramics: Pinch & Drape Hand Building (semester)

### **MUSIC**

Chorus (year)  
Symphonic Band (year)  
Jazz Ensemble (year)  
Orchestra (year)

Music for You  
Music Theory I (semester)  
Music for Film and Stage (semester)

Chorus, Jazz Band, Orchestra, and Symphonic Band are offered as a four-year sequenced program, meaning students may take them consecutively in 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade.

Music for You may be taken multiple times, as students will explore new learning experiences, interests, and projects each time.

### **ART**

Students will utilize the design process, Habits of Mind, and 21<sup>st</sup> Century Skills in all art courses. The following courses are designed to help students build their confidence and skills in communication, collaboration, problem-solving, and self-direction. Students will be encouraged to develop creativity, flexibility, and responsibility while developing and creating their art.

### **DRAWING I (semester) formerly Make Your Mark**

#760 Grades 9,10, 11, or 12

If you are looking to develop your drawing skills or want to just get a start, this semester course will help you get there. Expand your style and practice technique using a variety of tools and mediums. Build strong connections between what is seen and transfer that onto paper. Participate in exercises that develop your observational skills.

Formerly known as Make Your Mark, this semester course will supply you with the tools you need for your creative outlet.

### **DRAWING II (semester)**

#748 Grades 9,10, 11, or 12

**Prerequisite:** Successful completion of Drawing I

In this course, students will build upon techniques and learning experiences developed at the Drawing 1 level.

### **PAINTING I (semester) formerly Passion, Patrons, and Paint**

#761 Grades 9, 10, 11, or 12

If you are looking to develop your painting skills or are just beginning, this semester course is for you. Expand your style and practice a variety of techniques while developing your foundation of color knowledge and apply it to a variety of painting surfaces.

Formerly known as Passions, Patrons, and Paint, this course will supply you with the tools you need for your creative outlet.

### **PAINTING II (semester)**

#749 Grades 9, 10, 11, or 12

**Prerequisite:** Successful completion of Painting I

In this course, students will be building upon techniques and learning experiences developed at the Painting 1 level.

### **FINE ARTS STUDIO (semester)**

#747 Grades 9, 10, 11, or 12

Redefine your definition of art to include experiences in metal-work, fibers, glass, or installation works. This semester course takes your learning experiences beyond traditional art and explores a variety of mediums and techniques. Participate in the design process utilizing Chrome Canvas and experience your ideas transition from their initial spark to actual physical forms. Students may enroll in this course more than once, building upon knowledge and skills development via new learning experiences, interests, and projects.



### **FASHION (semester) formerly Fashion, Fad, and Fantasy**

#770 Grades 9, 10, 11, or 12

Are you a trend-setter or do you follow a lead? When does a fad become fashionable? How can you utilize fantasy and imagination to fuel creativity and creation? Co-taught by an Art and Family and Consumer Science teacher, this course will focus on the elements of design and basic embroidery and sewing techniques to create original fashion items.

One day, you will look at old pictures of yourself and wonder, why in the world did I wear that clothing, drive that car or think that chevron print was cool? What was I thinking?

Believe it or not, older generations probably wore clothing and drove cars with similar styles. Ask yourself, what is fashionable and who decides what is popular?

Whether you consider yourself trendy or not, this is your chance to share your energy and vision.

### **CERAMICS: WHEEL THROWING (year) formerly As the Wheel Turns**

#764 Grades 9, 10, 11, or 12

In this course, body, balance, and pressure unite to create cups, bowls, and cylinders on the potter's wheel. Formerly known as As the Wheel Turns, this learning experience explores clay and its various stages of development as it transforms from a mound of earth to a functional piece of dinnerware. Through determination and practice, you will develop the skills needed to succeed in this year-long hands-on course. **All ceramics courses may be taken without prior ceramics experience.**

### **CERAMICS: COIL & SLAB HAND BUILDING (semester) formerly Earth, Fire, Water**

#762 Grades 9, 10, 11, or 12

Formerly known as Earth, Fire, and Water, this semester course explores clay and its various stages of development from a mound of earth to functional dinnerware to sculptural art forms.

Develop your hand-building skills through the exploration of clay in a series of techniques introducing coil, slab, and drape construction methods and a combination of these techniques. **All ceramics courses may be taken without prior ceramics experience.**

### **CERAMICS: PINCH POT & DRAPE HAND BUILDING (semester) formerly Get Fired Up!**

#763 Grades 9, 10, 11, or 12

Develop your hand-building skills through the exploration of clay in a series of techniques introducing pinch pot and drape construction methods and a combination of these techniques.

Formerly known as Get Fired Up, this semester course explores clay and its various stages of development from a mound of earth to functional dinnerware to sculptural art forms. **All ceramics courses may be taken without prior ceramics experience.**

## MUSIC

### Why Learn Music?

**Music is a science.** It is precise, specific, and demands exact acoustics. Written music is a chart that indicates pitch, frequency, intensity, volume, melody, and harmony all at once with an exacting control of time.

**Music is mathematical.** It is rhythmically based on the subdivisions of time into fractions that musicians compute seamlessly while performing.

**Music is a foreign language.** Many terms are passed down in Italian, German, and French, among others. The notation is a highly developed shorthand that uses symbols to represent complex ideas. Understood throughout the world, Music is a complete and universal language.

**Music is history.** Music reflects the setting, time, and place of its creation and can lead to insight in the composer's background.

**Music is a physical education.** It requires intricate coordination of fingers, hand, arms, legs, lips, and facial muscles. It requires the extraordinary control of the diaphragm, back, stomach, and chest muscles that respond seamlessly to the sound the ears hear and the mind interprets.

**Music is all of these things and so much more, but most of all, Music is Art!** It allows human beings to take all of these techniques and concepts and use them to create and express human emotion.

### **That is Why We Learn Music!**

### Evaluation of Students in Performing Ensembles

Students participating in performing ensemble will be evaluated on participation during class, participation in rehearsals, attendance at concerts, and growth. Please consult the course syllabi for additional information. **Participation in Rehearsals and Concerts is Mandatory for All Performing Ensembles**

## **CHORUS**

#771 Grades 9, 10, 11, and 12

The concert choir is a group of students with a desire to sing. This chorus offers the opportunity to participate in an active singing group that contributes to the life of the school and community. Elements of vocal technique and concepts in musicianship are incorporated through preparation for various public performances. The chorus performs in December and May. Important considerations include ability to sing, commitment within the group, and positive individual contributions. Specific concert attire is required as well as some evening performance times.

## SYMPHONIC BAND

#775 Grades 9, 10, 11, and 12

**Prerequisite:** Prior experience playing a band instrument.

The Symphonic Band course is a continuation of the instrumental music education program for students who have had previous experience in playing a band instrument. Enrollment in Symphonic Band is considered enrollment in Marching Band and vice versa. This course seeks to expand the technical, intellectual, and spiritual horizons of young band musicians by promoting the highest performance standards possible along with the development of creativity, flexibility, and versatility on the part of each band student. All types of quality concert band literature are studied with the goal of expanding each student's level of music appreciation, as well as, preparing them for playing with college and community bands. Several symphonic band concerts are scheduled throughout the year and allow students ample performance opportunities while emphasizing the development of a commitment to the group. Specific concert attire is required as well as some evening performance times.

## JAZZ ENSEMBLE

#776 Grades 9, 10, 11, and 12

**Prerequisite:** Audition and/or teacher recommendation. **A signature is required before students are permitted to schedule this course.** Students are not permitted to schedule Jazz Band without first scheduling Symphonic Band except by written permission of the instructor.

This is a specialized ensemble designed for advanced instrumental students who want to expand their knowledge and performance ability through the study of jazz and pop music styles. Instrumentation is limited to the standard jazz band grouping of 5 saxophones, 4 trumpets, 4 trombones, guitar, bass-guitar, drums and keyboards, however, multiple players in each section are encouraged. All types of quality jazz band literature are studied both in written form, as well as through the development of improvisation skills. Several concerts are scheduled throughout the year and allow students ample performance opportunities while emphasizing the development of commitment to the group. Specific concert attire is required as well as some evening performance times.

## ORCHESTRA

#790 Grades 9, 10, 11, and 12

**Prerequisite:** Prior experience playing an orchestra instrument or approval from the Orchestra Director.

The High School Orchestra Course is designed for students interested in further development as string musicians. The course has a focus on both ensemble playing and individual performance skills. Students may repeat this course multiple times throughout High School, from 9th through 12th grade. Students are also able to take this course as a continuation from the 8th Grade orchestra course. Students who did not participate in the Middle School Orchestra program courses should seek out the Orchestra director's approval before enrolling in the course.

Students will have the opportunity to perform more advanced orchestral repertoire, refine their performance technical skills, and deepen their knowledge of literature and vocabulary related to orchestral music. Students will learn and perform literature composed at an appropriate level for the

ensemble, selected by the director. Students enrolled in this course are required to participate in all performances and dress rehearsals.

## **MUSIC FOR YOU**

#782 Grades 9, 10, 11, or 12

This High school music elective is designed to allow students to pursue independent study in a specific area of music that interests them. Students will propose a method of study in their chosen area, then implement that plan with consultation and assistance from the instructor throughout the year.

Possible topics students may explore include, but are not limited to, electronic music/MIDI/DAW, guitar, piano/keyboard, songwriting, traditional wind band instruments, percussion, string instruments, and voice.

Students may enroll in this course more than once and gain a different experience each year, based on new learning experiences, interests and project ideas.

## **MUSIC THEORY I (semester)**

#801 Grades 9, 10, 11, or 12

In Music Theory, students will break down the mysteries of music into fundamental elements and find out what makes it all work. Why are there 8 notes in a scale, or is it 12, and could it be more or even less? Whether you are looking to further your understanding of music to help you be a better musician or you are just curious, Music Theory is great way to continue learning.

Students will also gain a deeper understanding of the rules of music, and also how and when to break those rules. Students will expand their ability to read and write music and will have opportunities to compose their own original music. Exploration of how music theory compares between cultures can give insight into other aspects of culture, let alone be super interesting.

## **MUSIC FOR FILM AND STAGE (semester)**

#810 Grades 9, 10, 11, or 12

Impress your friends and family with words such as Diegetic and Non-Diegetic Music and learn the difference for yourself. Diegetic music is the music that occurs within a scene and can be heard by the characters and non-diegetic music, only by the audience. How does one use these two types of music to help tell the story?

Students will learn about the history of music on screen and on the stage. Understanding the role that music plays in these works will help students develop a deeper appreciation for both the music and the film, ballet, opera, musical, or even advertisement. Students will have an opportunity to develop their own creativity by creating short musical scores for everyday scenes using various technologies.

## **PHYSICAL EDUCATION COURSES**

Physical Education/Health 9 and 10

Physical Education 11 and 12

Lifetime Fitness for You

Strength Training and Conditioning

**Students may only take a Physical Education course once per semester**

PE with Health must be taken by the end of the 10<sup>th</sup> grade year

### **PHYSICAL EDUCATION and HEALTH 9/10**

(semester – students will take this course in ninth or tenth grade)

#854 Grades 9 and 10

The high school physical education program is designed to enhance the physical, mental, and social development of students through participation in a wide variety of physical activities. A key objective of the program is to promote student wellness and lifetime fitness. The Physical Education Department offers units designed to develop activity skills as well as physical fitness. Health will also be integrated into course content.

### **PHYSICAL EDUCATION 11/12 (semester)**

#915 Grades 11 and 12

The high school physical education program is designed to enhance the physical, mental, and social development of students through participation in a wide variety of physical activities. A key objective of the program is to promote student wellness and lifetime fitness. The Physical Education Department offers units designed to develop activity skills as well as physical fitness.

### **LIFETIME FITNESS FOR YOU (semester)**

#927 Grades 10, 11, and 12

This course provides students with the opportunity to explore physical education outside of the traditional team sports setting. Students will engage in a wide variety of non-competitive fitness and leisure activities. The class is designed to promote lifelong participation in physical activities outside the spectrum of team sports. If you are looking for a more non-traditional physical education class, Lifetime Fitness is for you.

### **STRENGTH TRAINING AND CONDITIONING (semester)**

#856 Grades 10, 11, and 12

Strength Training and Conditioning is a must for any student who wishes to improve upon their muscular system. The main class objective is creating a better, well rounded student through weight lifting activities. The class may include but is not limited to improving speed, agility, balance, coordination, body composition, and mental discipline. Only students who are serious about enhancing their physical abilities and enjoy working hard should consider this course.

## **APPENDIX A**

### **ALTERNATIVE OPTIONS FOR EARNING CREDIT AND/OR MEETING SEQUENTIAL COURSE REQUIREMENTS**

A. Alternative options for earning credit must relate directly to the achievement of Academic Standards. These options include:

1. Higher Education Courses. The following provisions apply to achieving Academic Standards in higher education courses:
  - a. High School students eligible to enroll in a dual enrollment program from an accredited institution of higher education may be permitted to use the dual enrollment course to satisfy graduation requirements provided that:
    - The course is taught at the college level and is recognized by the higher education institution as a credit-bearing course.
    - The student satisfactorily completes the requirements of the college course.
    - A transcript of the completed college course is submitted by the higher education institution to the counseling office.
  - b. If a student takes a college course during their cohort years (9-12), they will receive credit, but the grade will only be factored into the student's high school cumulative GPA if the course is used to satisfy the credit requirements in one of the four core academic areas (English, math, history, science).
  - c. Any student taking a college course will be responsible for all fees incurred.
2. Keystone Oaks Cyber Academy: Students may enroll and demonstrate academic achievement in the District's cyber school program, with prior approval from the high school principal. Credit will be awarded and student grade point average will be applied to their transcript. Students will be required to adhere to the KO Cyber program procedures outlined in the cyber program contract.
3. Education Experiences. Students may demonstrate achievement of Academic Standards and earn elective credit through completion of courses in accredited educational programs outside the school which have a planned course format that meets Chapter 4 regulations and is approved by the principal in advance.

Credits earned in educational programs approved by the principal which do not follow Chapter 4 regulations will be graded on a "PASS/FAIL" basis and will not be computed in the student's grade point average.

### **Credit Recovery for a Failed Class**

There are two (2) options available for a student who has failed a class.

- Option 1:     **Scheduling and retaking the class the following year / semester at Keystone Oaks High School.** Under this option, the grade and credit earned will be applied to the GPA during the year/semester the class was rescheduled and passed. The grade earned during the year/semester the class was failed will not change and will still be applied to the GPA and reported on the transcript.
- Option 2:     **Completing an approved summer school or equivalent program.** Under this option, the grade and credit earned for the summer school class will be applied to the GPA. The grade earned during the year/semester the class was failed will not change and will still be applied to the GPA and reported on the transcript. The course must be completed and accompanying documentation must be provided to the student's counselor by August 15<sup>th</sup>. Failure to complete the course by this date will result in the student repeating the failed course.

# **APPENDIX B**

## **Sample Course Waiver Form**





KEYSTONE OAKS HIGH SCHOOL  
1000 KELTON AVENUE • PITTSBURGH, PA 15216  
PHONE 412.571.6000 • FAX 412.571.6006

## Keystone Oaks High School Course Waiver Form

Student Name: \_\_\_\_\_

Recommended Course: \_\_\_\_\_

Requested Course: \_\_\_\_\_

At Keystone Oaks High School, we encourage students to challenge themselves by taking rigorous courses that will help to prepare them for the curriculum of more advanced courses at the high school and post-secondary school. Additionally, since motivation and interest are important variables in student success, we realize that current academic performance may not predict future academic performance. Consequently, if you believe that your son/daughter is capable of being successful in this accelerated course, you may complete this form to request admission to the course. This course waiver form cannot be used to circumvent prerequisite courses.

Please provide a written rationale for your request which will help the Principal to gain a better understanding of your child before rendering a decision. Also, understand that scheduling and staffing issues may prohibit a change to the recommended course at a later date. Additionally, while teachers typically offer extra support for their students, you should not expect the teacher to provide extensive tutoring for your child in this advanced course. If necessary, a meeting to discuss the recommendation will be held in the summer.

The teacher of the accelerated course may request a review of the placement with the student and parent at the mid-way point of the first nine-weeks in order to discuss the appropriateness of the placement.

Comments from both the child and the parent (Please use back or attach a separate sheet(s) of paper):

Student's Signature: \_\_\_\_\_ Parent's Signature: \_\_\_\_\_

Teacher's Signature: \_\_\_\_\_ Counselor's Signature: \_\_\_\_\_

(For Office Use Only)

\_\_\_ Approved \_\_\_ Not Approved (Reason): \_\_\_\_\_

Principal's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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KEYSTONE OAKS IS AN EQUAL OPPORTUNITY SCHOOL DISTRICT

**KEYSTONE OAKS HIGH SCHOOL**

1000 KELTON AVENUE • PITTSBURGH, PA 15216  
PHONE 412.571.6000 • FAX 412.571.6006

**SCHOOL COUNSELING DEPARTMENT**

Dear \_\_\_\_\_,

Your child has selected a class(es) for the 2022-2023 school year that has not been recommended. If your child insists on taking the class(es), please be advised that he/she may encounter difficulties. If you have any questions pertaining to your child's schedule or our rationale for not recommending the class(es), please contact your child's counselor as soon as possible. Otherwise, please sign at the bottom where indicated and select whether or not you would like your child's schedule to be changed to reflect the recommendation(s). Return this form to the High School Counselor Office at the address listed above by August 1st, 2022. You may also email the appropriate counselor to verify receipt of this notification and indicate if any changes are to be made.

CLASS(ES) NOT RECOMMENDED

CLASS(ES) RECOMMENDED

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Sincerely,

\_\_\_\_\_  
Counselor Signature

\_\_\_\_\_  
Date

Ms. Jennifer Tom – (412) 571-6067; tom@kosd.org  
Ms. Lauryn Greggs – (412) 571-6090; greggs@kosd.org  
Ms. Nicole Varrenti – (412) 571-6068; varrenti@kosd.org

Please change my child's schedule to include the recommended classes.  
Please do not make any changes to my child's schedule.

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

**IMPORTANT:** If your child's counselor does not receive this form or an email message by August 1st, their schedule will be changed and he/she will be enrolled in the recommended class(es) listed above.

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## **APPENDIX C**

### **AP Student Contract**

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The Advanced Placement (AP) Program is intended to challenge and prepare students for the rigor of college. Students who take AP courses are more attractive candidates to college admissions offices, are more likely to persist in college, and may earn college credit or advanced placement if they earn a 3, 4, or 5 on AP exams in May. To account for the rigor, AP Courses are assigned an additional 1.0 weight on the GPA scale. To receive these added academic benefits, it is expected that students and parents understand and are willing to comply with the following:

- I understand that the academic rigor, pace, and teacher expectations are that of a college level class, and I must be self-motivated to study and prepare for this course.
- I understand that the AP exam is an expectation of the course, agree to register for and take the corresponding AP exam in May.
- I understand if I do not take the exam, the course will become an Honors course and only assigned 0.5 additional weight
- I understand that I am exempt from the final exam if I take the AP exam.
- I understand I will be charged the \$40 College Board returned exam fee if I opt out of the exam.

It is imperative that both students and their families are aware of the benefits and expectations of taking Advanced Placement courses. By signing below, I am acknowledging that I have read, understand, and will adhere to the expectations listed above.

**Student Name:** \_\_\_\_\_

**AP course(s):** \_\_\_\_\_

**Student Signature:** \_\_\_\_\_

**Parent/Guardian Signature:** \_\_\_\_\_