

# Program of Studies 2019-2020



## Oakmont Regional High School

Please visit our website at

<http://www.awrsd.org/>

As of February 7, 2019

February 2019

To Oakmont Students and Parents:

We're pleased to present the Oakmont Regional High School Program of Studies for the 2019-2020 school year. Within these pages you'll find information about our courses and academic policies. In addition, you'll find important information about graduation requirements and how to prepare for continuing your education after high school. Our district's vision is to prepare all students to be contributing citizens of local and global societies in an ever-changing world. Additionally, Oakmont's goal is to ensure that all our students are prepared to meet their goals after high school graduation, whether those goals involve college, career, or the military.

High school is filled with opportunities. Oakmont's faculty is talented and offers outstanding courses to provide unique opportunities that often create new and uncharted avenues for students. Look carefully at this program of studies and dare to be bold --try something new! Some electives are in high demand; it may make it more difficult for every student to be scheduled into his or her first choice of electives. However, all of the electives that we offer in our curriculum present students with learning experiences that are intellectually, artistically, or technologically challenging. If you find yourself scheduled into a course that is a second or third choice, it is our hope that you will be open to new experiences and explore new disciplines – you might surprise yourself!

Oakmont is a wonderful place. We have achieved wonderful scholastic, artistic, musical, and athletic awards and honors. We are a caring community that sponsors countless service projects and charitable donations to help those who are less fortunate. We are a strong family that faces its challenges head on, draws together when times are tough, and celebrates the joy of our triumphs. We accomplish all of this because we are a family of talented educators, exceptional students, and supportive parents and guardians who value education. Whether you are a resident of our two towns or a school choice student, whether you are an incoming 9<sup>th</sup> grader or a transferring upperclassman, we welcome you into the Oakmont family.

The 2019-2020 school year will be an exciting year of new challenges and accomplishments. Whether this is your first year at Oakmont, or you are returning to continue your academic career, we wish you all the best. If, at any time, we can be of assistance, please contact us at [duminski@awrsd.org](mailto:duminski@awrsd.org) or [kbogosh@awrsd.org](mailto:kbogosh@awrsd.org).



David P. Uminski  
Principal



Kristina Bogosh  
Assistant Principal

<b>Table of Contents</b>	<b>Page</b>
District Vision and Mission	3
Learner Expectations	3
Core Values	4
<b>Scholastic Information</b>	
Course Selection	5
Course Selection Changes	5
Graduation Requirements	5
Course Credit Requirements for Grade Placement	6
“Senior Rule” Requirements	6
Credit Recommendations for College Acceptance	7
Grading System	7
Incomplete Course Work	7
Student Assessment	8
Grade Point Average	8
Honor Roll	8
Post High School Planning	8
Massachusetts Board of Regents Requirements	9
Minimum Entrance Requirements for Colleges/Universities	9
Requirements for Higher Education	9
Independent Study Policy	10
<b>Course Descriptions</b>	
English/Language Arts/Reading	11
Social Studies	15
Foreign Language	18
Mathematics	21
Science	25
Business Education	30
Visual Arts	31
Performing Arts	34
Technology / Engineering	36
Health and Fitness	39
English Learners (EL)	40
Modified Special Education Course Offerings	41
Oasis Alternative Special Education Program Courses	44
Specialized Course Offerings	47
Green/White Day .5 Credit Courses	48
Dual Enrollment with other Educational Institutions	50
<b>Course Planning</b>	
Four Year Course Planning Form	52
Course Selection Form	53
Course Offerings Worksheet for 2017-2018	55

# ASHBURNHAM - WESTMINSTER REGIONAL SCHOOL DISTRICT

## VISION

The Ashburnham Westminster Regional School District prepares all students to be contributing citizens of local and global societies in an ever-changing world.

## MISSION

At Ashburnham Westminster Regional School District, we focus on doing what is best for students to meet their academic and social-emotional needs to thrive in a global society through:

- academically challenging curriculum;
- community and civic engagement;
- continuous, responsible use of all resources and evolving technology;
- high quality, ongoing, focused professional development for staff;
- real world applications;
- reflection for continuous improvement;
- research based and data driven instructional practices;
- resilient, solution-based mindsets; and
- student input and ownership.

## LEARNER EXPECTATIONS

### Academic

- Critical Thinking: Reading, listening, and research skills to gather, interpret, synthesize and evaluate information while using a variety of methods and technologies.
- Communication: Demonstrate learning through creative, multiple modes of expression which include but are not limited to various technologies.

### Social

- Responsibility: Demonstrate responsibility by being flexible and adaptable while working independently and collaboratively to accomplish tasks.
- Decision-Making: Plan for and make healthy lifestyle decisions.

### Civic

- Citizenship: Understand the rights and responsibilities of a citizen in a diverse democratic society and be thoughtful, accepting, reflective, and active citizens in the school and larger community.

## **Core Values**

In our pursuit of academic, technological, and personal excellence, the Oakmont learning community will act responsibly, be self-directed, communicate clearly and appropriately, address and solve problems, and practice respect.

### **Responsibility**

We are responsible when we

- account for our actions, attitudes words and their consequences;
- consider others' needs;
- reflect on our actions and respond accordingly;
- accept constructive criticism;
- use technology ethically;
- contribute fully while collaborating with peers.

### **Self-Direction**

We are self-directed when we

- prioritize academic tasks and manage time effectively;
- make decisions in pursuit of a healthy lifestyle including nutrition, physical fitness, and preventative care;
- make informed, thoughtful decisions regarding our emotional, physical and mental health;
- conduct ourselves appropriately in a variety of social situations;
- work diligently, independently or within collaborative groups.

### **Communication**

We communicate clearly and appropriately independently or collaboratively when we

- read actively and critically for information and understanding;
- write clearly and accurately for a variety of purposes;
- speak clearly and appropriately for the audience;
- listen attentively and openly to others;
- use multiple modes of creative expression;
- demonstrate cultural and digital age literacy.

### **Problem-Solving**

We address and solve problems independently or collaboratively when we

- adapt to ever-changing learning environments;
- look for analytic and/or creative ways to identify, describe, and solve real-world problems;
- research, interpret, evaluate, analyze, and synthesize information from verbal, printed, and digital sources;
- demonstrate curiosity and intellectual risk-taking.

### **Respect**

We practice respect when we

- accept others with kindness and openness;
- expand our awareness of and appreciation for the global community;
- treat others ethically with honesty and integrity;
- accept diversity and recognize the different ways we learn, think, look, and live.

## **SCHOLASTIC INFORMATION**

### **Course Selection**

Proper course selection requires communication and cooperation among the student, the parent or guardian, and the school. As a student proceeds through high school, the student's abilities, interests and future plans must all be considered to select appropriate courses in preparation for post-secondary study or employment. Students must consider their strengths and weaknesses, recognize their levels of achievement, and develop clear goals for their future as they select their courses. Students should seek the advice of their teachers, counselors, and parents in making course selection decisions.

Teachers can provide a student with valuable information about his or her level of achievement as observed during daily classroom performance. Counselors help students review graduation requirements and provide careful, long-range planning to ensure that the students select a meaningful educational program. Parents should follow the progress of their students as they prepare for the years beyond high school.

The courses listed in the Program of Studies vary in difficulty and are intended to serve the needs of students with a wide variety of aptitudes and interests. All students must schedule eight (8) blocks per year. Course selection begins with the rising 8<sup>th</sup> graders in January and continues with Sophomores in February, followed by Juniors in March and Freshmen in April. This is accomplished with the help of guidance counselor interviews and with consultation and approval of parents and teachers.

### **Course Selection Changes**

All course change requests shall be directed to the student's School Counselor. We strongly recommend that parents and students carefully choose courses because changes during the school year limit options and jeopardize academic success. Therefore the following students will receive priority for course changes:

1. Students who are scheduled for fewer than 8 courses.
2. Students who have failed a course and did not attend summer school.
3. Students who are scheduled for courses out of sequence.
4. Students who are scheduled for a course they have already completed.

Student requests to change a course for any other reason will require School Counselor approval, and must occur within the first five (5) days of a semester. Requests for course changes after five (5) days are strongly discouraged and require the consent of the student's counselor, parent/guardian, administration, gaining teacher, and sending teacher. Course withdrawals made after five (5) days in a semester will be recorded in the student's permanent transcript as a "withdrawn" at the discretion of the Principal.

### **Graduation Requirements**

Students must earn 26 course credits and meet the MCAS requirements for their year of graduation to receive an Oakmont diploma.

Within this overall credit requirement, there are certain courses that are required for all students:

#### **4 credits in English**

English 9 College Prep or Honors, or F.I.R.S.T.

English 10 College Prep or Honors

English 11 College Prep or Honors, or Advanced Placement English Language

English 12 College Prep or Honors, or Advanced Placement English Literature

### 3 credits in Social Studies

One course in either: Foundations: Ancient to 1763 or US and the World: Early Modern 1763-1900 or  
US and the World: Globalism and Terror 1989-Present  
US and the World: Twentieth Century 1900-1989 (required)  
One Social Studies elective

### 3 credits in Mathematics (Any course sequence is acceptable)

### 3 credits in Science

(Biology is a required course)

.5 credit in Business Applications and Career Explorations (or a passing score on the Technology Competency Examination)

### 2 credits in Fitness and Health

Health and Human Behavior (Grade 9 - .5 credit)

10.5 Elective credits – (selected from any content area)

(NOTE: Students who plan to attend a four-year college are strongly encouraged to earn at least two credits in one of the Foreign Languages.)

\*Seniors in good academic standing may receive .5 credit to meet their Grade 12 fitness participation requirement by participating in a supervised athletic or fitness activity outside the normal school day. An athletic or fitness activity must meet the following conditions to qualify:

- Be supervised by a licensed fitness professional or coach
- Result in increased physical fitness
- Extend for at least 60 hours
- Take place during first semester

Participating seniors must fill out a senior fitness waiver form and return it to their guidance counselor before the end of the second week of the fall semester. Seniors who do not complete the activity or fail to meet the participation hours will be scheduled for a Fitness class during second semester.

### **Course Credit Requirements for Grade Placement**

Students must earn the following minimum credits by the beginning of the academic year to be considered a member of each academic class:

Freshman Class (9 <sup>th</sup> Grade)	Successful Completion of 8 <sup>th</sup> Grade
Sophomore Class (10 <sup>th</sup> Grade)	6 Credits
Junior Class (11 <sup>th</sup> Grade)	12 Credits
Senior Class (12 <sup>th</sup> Grade)	18 Credits

### **“Senior Rule” Requirements**

Members of the senior class who have earned twenty six (26) credits and have met all graduation requirements are welcome to participate in the graduation ceremony. In addition, seniors are required to pass the equivalent of six (6) full credit courses and earn six (6) credits during the senior year. A grade of “D” is considered passing, but only earns .5 credits during senior year toward senior requirements. Seniors are not allowed more than seven (7) unexcused absences during second semester senior year.

Members of the senior class who do not meet graduation participation requirements may request a waiver that will enable them to participate in graduation by submitting a written request to the Principal by May 13<sup>th</sup>. The written request must clearly indicate why the student should be allowed to participate in graduation and how they intend to complete graduation requirements in the future. The Principal will form a committee with representation from the faculty, guidance, and the administration to review each request.

## Credit Recommendations for College Acceptance

The credits listed above meet only minimal Oakmont requirements for graduation, but all students have the ability to earn 32 credits. The needs, abilities and future plans of high school students vary widely. As a result, programs for students should be developed individually with each student receiving a balanced program, which entails some study in each of the fundamental areas of language arts, social studies, science, and mathematics. Students intending to pursue post-high school educational opportunities should consider the following list of credits as a minimum for admission to most colleges, universities and technical schools.

The following list of four-year credit accumulation would be acceptable to most college or university programs. You will need to check the requirements for specific colleges or universities

4 English

3 Social Studies (US and the World: Twentieth Century required, one additional history class, and one elective)

3 Mathematics (Algebra 1, Geometry, and Algebra 2)

Effective with the Class of 2016, an additional year of Math taken in the senior year of high school will be required for admission to Mass. State Universities and the University of Mass.

3 Science (Two Lab Sciences – all Oakmont Science offerings are Lab Sciences)

2 Foreign Language (Same Language)

8 Electives

2 Health/Fitness

.5 Health and Human Behavior

.5 Business Applications and Career Explorations

**26 Credits Total**

## Grading System

Student grades are issued as follows:

90% - 100% grade average (A+, A, A- )

80% - 89% grade average (B+, B, B -)

70% - 79% grade average (C+, C, C-)

60% - 69% grade average (D+, D, D-)

50% - 59% grade average (F - student is eligible to repeat the course in summer school)

0% - 49% grade average (F - student is not eligible to repeat the course in summer school)

I Incomplete

M Medical Excuse

X No Grade

P Passing

W Withdrawn

Note: All summer school courses must be approved by the Guidance Office before the student begins classes. A final grade above 50 is required to attend summer school.

## Incomplete Course Work

In case of incomplete work the following will apply:

1. An "I" will be recorded on a report card when a student has not completed the required course work.

2. Students with an incomplete grade will be given two weeks (ten school days) after report cards are issued to make up the missing work. If the work is not made up within the two-week time frame the course grade will be changed from I (incomplete) to F (failure). **All second semester coursework must be completed by the last day of school.**

3. In extraordinary circumstances the teacher, guidance counselor and student will design a makeup contract for term or semester incompletes. All work must be made up and completed by contract deadline, or the course grade will be changed from I (incomplete) to F (failure).

4. Under special circumstances, a student may make arrangements with his/her teachers along with administrative approval to complete work during the summer vacation or attend summer school for incompletes. This exception is reserved for extraordinary medical circumstances and requires the direct approval of the Principal.

### **Student Assessment**

During each semester the following reports on student assessment will be posted on the Parent Portal. On approximately day 22 and day 66 of each semester parents should check the Parent Portal for academic warning progress reports. On approximately days 45 and 90 report cards will be posted to the Parent Portal each semester. The final course grade for the semester will combine the two term grades (80%) and a final assessment grade (20%).

### **Grade Point Average**

Grade point average (GPA) is unweighted and is based on a 4.3 scale: 4.3 points for a grade average of 100%, 3.3 for a grade average of 86% etc. The grade point average is computed for all courses completed at the end of each semester. The computation of GPA begins in Grade 9 and continues through Grade 12. Classes that are graded as a “pass/fail” do not count towards the student’s GPA.

### **Honor Roll**

The honor roll recognizes superior academic achievement. A student must have a minimum of three (3) blocks of academic credit from courses offered at Oakmont Regional High School to qualify for honor roll.

Honor roll eligibility for grades 9 through 12 is as follows:

Highest Honors. . Students having a minimum grade average 90%, GPA of 3.7

High Honors . . . . Students having a minimum grade average of 90% with no more than one course with a grade average of 80%, or above, GPA of 3.50

Honors . . . . . Students having a minimum grade average 80%, GPA of 2.7

### **Post High School Planning**

All students are encouraged in their sophomore year to begin gathering information on college/universities and exploring a college major based on personal interest and ability. Online resources may be accessed through our website <http://oak.awrdsd.org/>, guidance tab. Naviance, a web based career and college resource, is introduced in the 10<sup>th</sup> grade Business Applications and Career Explorations course. This resource is available to all students as they manage their future college or career plans.

College bound Sophomores and Juniors may take the PSAT/NMSQT in October. Juniors may take the College Board SAT Test in March, May or June. Some competitive colleges and universities require SAT Subject Tests, which are also available in August, March, May, and June. Students who have completed Physics may choose to take the ACT college readiness assessment. Students are advised to begin their college visits with their parents during the spring and summer vacations of their Junior year.

During the Senior year, students should complete four-year college applications online by December 1<sup>st</sup> and retake the SAT Test and SAT Subject Tests, typically in October, November or December. Students must use their Naviance accounts to request transcripts, letters of recommendation, and manage their college applications.

## **Massachusetts Board of Regents Requirements for Admission to all Four Year State Colleges and Universities (Effective 2013)**

High school students must complete a minimum of sixteen unit (block course) requirements to be eligible for college admission. All sixteen must be college preparatory courses in the following subject areas with the minimum number of courses of study as indicated:

English -4, Mathematics -4, Natural and Physical Sciences -3, Social Studies -2,

Foreign language -2, Electives -2. (Electives may be from any of the subject areas identified above or from Business Education, Technology Engineering, the Visual and Performing Arts, or from Health and Fitness.)

**Effective with the Class of 2016, an additional year of Math taken in the senior year of high school will be required for admission to Mass. State Universities and the University of Mass.**

### **Minimum Entrance Requirements for Colleges/Universities**

A minimum grade point average in college preparatory course work at the end of the sixth semester is required for Freshman Applicants. **The Massachusetts State Universities and UMASS Universities require a 3.0 GPA for admission.** For students whose GPA falls below the minimum, the provisional sliding scale below will apply.

<b>Applicant GPA</b>	<b>SAT score must be for</b>		<b>ACT score must be for</b>	
	<b>State Universities</b>	<b>UMASS</b>	<b>State Universities</b>	<b>UMASS</b>
2.51-2.99	920	950	19	20
2.41-2.50	960	990	20	21
2.31 -2.40	1000	1030	21	22
2.21-2.30	1040	1070	22	23
2.11-2.2	1080	1110	23	24
2.00-2.10	1120	1150	24	25

**No Mass. State University or UMASS will admit a student with a GPA below 2.0**

### **Requirements for Higher Education**

Suggested high school course loads for higher education pathways are listed below:

#### **Four-Year Degree Granting Colleges (Bachelors Degree)**

English – Four courses

Mathematics – Minimum of three courses, plus Pre-Calculus or Probability and Statistics for many majors

Science – courses, a minimum of two laboratory sciences

Social Studies – Three courses minimum, including US and The World: Twentieth Century

Foreign Language – Two courses minimum in one language, three to four courses in one language preferred

Technology / Engineering - One or more courses preferred

#### **Four-Year Degree Granting Colleges (Bachelor of Fine Arts Degree)**

English – Four courses

Mathematics – Minimum of four courses, plus Pre-Calculus Probability and Statistics for many majors

Science – Three courses, a minimum of two laboratory sciences

Social Studies – Three courses minimum, including US and The World: Twentieth Century

Foreign Language – Two courses minimum in one language, three to four courses in one language preferred

Technology / Engineering - One or more courses preferred

Visual / Fine Arts –Portfolio of advanced art work ranging in media, observation and personal voice required at most four year degree granting colleges

#### **Engineering Colleges - 4 or 5 Year Programs (Bachelors Degree)**

English - Four courses

Mathematics - Four courses (plus Calculus if possible)

Science - Biology, Chemistry, Physics (Advanced Sciences also helpful)

Social Studies - Three courses minimum, including US and The World: Twentieth Century

Foreign Language - Two courses in one language or more

Technology / Engineering - One or more courses recommended

### **Health Professions – Nursing, Pharmacy & Related (Bachelors Degree)**

English - Four courses

Mathematics - At least three courses (Pre-Calculus or Probability & Statistics is recommended)

Science - Biology and Chemistry plus one or two additional courses (Anatomy and Physiology, if possible)

Social Studies - Three courses, including US and The World: Twentieth Century

Foreign Language - Two courses in one language

### **Two-year and Community College (Associates Degree)**

English - Four courses

Mathematics - Three courses, completion of Algebra 2 is strongly recommended

Science - Three courses, at least one laboratory science

Social Studies - Three courses, including United States History

### **Two-year Technical Institutes and Schools**

English - Four courses

Mathematics - Three courses, completion of Algebra 2 is strongly recommended

Science - Three courses including Physics or Principles of Technology,

Social Studies- Three courses, including U.S. History

Technology / Engineering - One or more courses recommended

### **Two-year and Community College Certificate Programs**

Certificate programs, usually one academic year in length, including Medical Assistant, Child Care Programs, Merchandising and Retailing, Interior Design, Business Administration, Accounting and General Studies.

Requirements for certificate programs (not for transfer) depend upon individual college policies. High school courses that include some college preparatory areas are desired.

### **Independent Study Policy**

An independent study is a course that is not offered as part of the school's regular curriculum.

Conditions:

- Students must be a junior or senior and have a minimum 2.8 GPA.
- Students are limited to two independent studies in the course of the two years.
- The student's guidance counselor must recommend the scheduling of an independent study.
- Course must be approved by the administration. Approval must be made during the course selection process.
- All independent studies will be granted college prep credit.
- Honors credit may be granted by the administration if ALL of the following conditions are met:
  1. The student applied for honors credit when registering for the course.
  2. The student demonstrates work above and beyond college prep expectations.
  3. The supervising teacher and the faculty committee that viewed the presentation recommend that honors credit be granted.
- All final grades will be assigned by the supervising teacher following a presentation to the faculty committee.

## **ENGLISH/LANGUAGE ARTS**

### **131 English 9 Honors (Grade 9)**

Five Blocks per week-Full Semester-1.00 Credit

English 9 Honors is designed to develop an appreciation and understanding of literary genres and to explore literature as a mirror of human experience. The study of literature focuses on six units of study: the short story, the novel, drama, poetry, mythology, and non-fiction. The course is intended to provide a solid base of instruction in reading, writing, grammar, and vocabulary. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies. Students in the Honors level course will read more literature (both primary and secondary documents), will read the literature at a faster pace, and will do more extensive writing and more extensive research of the literary historical periods. Honors students will be expected to show more independence in projects, activities and individual learning.

### **133 English 9 (Grade 9)**

Five Blocks per week-Full Semester-1.00 Credit

Grade 9 English is designed to develop an appreciation and understanding of literary genres and to explore literature as a mirror of human experience. The study of literature focuses on six units of study: the short story, the novel, drama, poetry, mythology, and non-fiction. The course is intended to provide a solid base of instruction in reading, writing, grammar, and vocabulary. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **0137/0138 English 9 - FIRST (Grade 9)**

Freshman Integrated Reading, Study Skills and Critical Thinking

Five Blocks per week-Full Year-2.00 Credits

(NOTE: Students must enroll in both semesters)

FIRST is a full-year course designed to build literacy skills for success in high school and successful completion of MCAS requirements. The curriculum emphasizes reading, writing, study skills and critical thinking skills. The study of literature will center on four major literary genres: fiction, poetry, drama and non-fiction. Study skills will include vocabulary building, research, organization, independent reading, creative and expository writing, editing and grammar. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **141 English 10 Honors (Grade 10)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of English 9

Grade 10 English Honors focuses on critical thinking, reading, and writing skills as students explore important life themes in literature. Students use literature as models in writing and continue a study of grammar and vocabulary study to build strong skills. Students will present formal and informal speeches to improve communication and speaking skills. A variety of writing and speaking assignments will allow students to develop confidence as writers and speakers. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies. Students in the Honors level course will read more literature (both primary and secondary documents), will read the literature at a faster pace, and will do more extensive writing and more extensive research of the literary historical periods. Honors students will be expected to show more independence in projects, activities and individual learning.

### **143 English 10 (Grade 10)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of English 9

Like 141H, Grade 10 English focuses on critical thinking, reading, and writing skills as students explore important life themes in literature. Students use literature as models in writing and continue a study of grammar and vocabulary study to build strong skills. Students will present formal and informal speeches to improve communication and speaking skills. A variety of writing and speaking assignments will allow students to develop confidence as writers and speakers. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **150/151 Advanced Placement English 11: Language and Composition (Grade 11)**

Five Blocks per week first semester. Alternate days second semester – 1.5 Credit

Course Sequence: Completion of English 10

This course follows the Advanced Placement curriculum which prepares students for success on the English Language and Composition AP exam. The curriculum aims to help students become skilled readers of prose written in a variety of rhetorical contexts and skilled writers who compose for a variety of purposes. The writing and reading stresses the interactions among writing purpose, audience expectations, and subjects and how the resources of language contribute to writing effectiveness. **Students are required to take the AP Preparation Block semester two and complete the AP Exam in the spring.**

### **152 English 11 Honors (Grade 11)**

Five blocks per week - Full semester - 1.00 Credit

Course Sequence: Completion of English 10

Grade 11 English Honors includes a chronological study of American literature and its evolution. Students will continue to develop critical thinking, reading, research, and writing skills. Literature-based writing activities range from persuasive and creative writing to literary analysis, using thesis statements and supportive textual evidence. Students will gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies. Students in the Honors level course will read more literature (both primary and secondary documents), will read the literature at a faster pace, and will do more extensive writing and more extensive research of the literary historical periods. Honors students will be expected to show more independence in projects, activities and individual learning.

### **153 English 11 (Grade 11)**

Five blocks per week - Full semester - 1.00 Credit

Course Sequence: Completion of English 10

Like English 151H, Grade 11 English includes a chronological study of American literature and its evolution. Students will continue to develop critical thinking, reading, research, and writing skills. Literature-based writing activities range from persuasive and creative writing to literary analysis, using thesis statements and supportive textual evidence. Students will gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **154/254 American Studies Honors (Grade 11) (Not offered 2019-2020)**

Five blocks per week English. Five blocks per week Social Studies - Full Semester – 2.00 Credit

Course Sequence: Completion of English 10

This course incorporates the study of American history and literature through an interdisciplinary look at selected themes and major ideas in American history with an emphasis on the Nineteenth and Twentieth

centuries. The course allows the opportunity for a wide variety of creative expression through interdisciplinary projects, readings, and presentations. Students in Honors courses will read more literature (both primary and secondary documents), will read the literature at a faster pace, and will do more extensive writing and more extensive research of the literary historical periods. Honors students will be expected to show more independence in projects, activities, and individual learning. The course fulfills the Grade 11 English and U.S. History requirements.

### **160/161 Advanced Placement English 12: Literature and Composition (Grade 12)**

Five Blocks per week first semester. Alternate days second semester - 1.5 Credit

Course Sequence: Completion of English 11

This advanced literature and writing course offers an opportunity for students to participate in college-level work and to develop their abilities as independent readers and writers, especially in the analysis of literature. Class activities include close reading of established and contemporary works in drama, fiction, and poetry. Students participate in classroom discussion to develop independence of thought and mature habits of critical thinking. Students write frequent short and long term written assignments. Students demonstrate their achievement by taking the AP exam at the end of the school year that could qualify them for college credit in English. **Students are required to take the AP Preparation Block semester two and complete the AP Exam in the spring.**

### **162 English 12 Honors (Grade 12)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of English 11

This honors course offers students opportunities to explore the themes, context, and development of world literature. Students look at world literature from ancient to contemporary times, studying the patterns found in literature in various periods and genres. Students consider the connections between world literature and the contemporary world in class discussion and in writing. The primary goal is to help students develop abilities as independent readers and writers, especially in the analysis of literature. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies. Students in the Honors level will read more literature (both primary and secondary documents), will read the literature at a faster pace, and will do more extensive writing and more extensive research of the literary historical periods. Honors students will be expected to show more independence in projects, activities and individual learning.

### **163, 164, 165 English 12 (Grade 12)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of English 11

The objective of this course is to prepare students for a successful transition to a college or work environment. Different sections of the course will have different literature emphasis. All sections will use reading, writing, presentations, discussion, and problem-solving assignments to deepen critical thinking skills. Students will write creative and analytical pieces with the goal to write coherent, insightful essays and papers.

Students may choose from these sections:

- **163 Contemporary Literature** – This course focuses on fiction and non-fiction pieces published within the past three decades. Students will analyze selected works and relate them to current topics in class discussion, writing, and creative activities. Students will gain an appreciation of current best-sellers and influential writings by modern authors.

- **164 Film and Literature** – This course examines the connections between film and literature and explores the similarities and the differences between the two. Student will look at film as a form of narrative and explore how film uses literary devices to tell a story. Students will read literature that has been turned into film and analyze the differences in the forms. Through class discussion and writing, students will analyze what each method has to offer an audience.
- **165 Sports Literature** – This course looks at the experience of sports figures on and off the field through fiction (short stories, novels, film) and non-fiction (autobiographies, biographies, interviews, and media broadcasts). Students will study how certain athletes have impacted society directly and how society has impacted some athletes’ careers. Students will examine the decisions authors made when retelling a story. Assignments include written reader responses and analytic essays as well as class presentations.

### **182/183 Book Smart** (Grades 9, 10, 11, 12)

Five blocks per week-Full semester-1.00 Credit OR Alternating blocks – 0.5 credit

This course is designed to foster a love of reading and thinking in the 21st century. The curriculum is driven by student choice of books (e.g., fiction, nonfiction, poetry, drama) and will include daily reading in class for 45 minutes, followed by independent project work, group discussion, group seminars, and/or teacher conferences. Students will be responsible for organizing their daily reading and learning with reading journals, agendas, and daily time sheets and for demonstrating flexibility and adaptability while working independently. The teacher will offer instruction through seminars designed to increase reading comprehension and higher level thinking skills such as analysis, synthesis, and evaluation of information and text. Students will present a culminating artistic project that demonstrates their understanding of the ideas and themes in their chosen text through creative modes of expression. This course may be taken multiple times for credit during a student’s four-year program.

### **184/185 Journalism** (Grade 9,10,11,12 )

Five blocks per week-Full semester-1.00 Credit OR Alternating blocks – 0.5 credit

Journalism is an elective course that focuses on the publication of student writing. Student writers become part of the exciting world of “the media” with the same rights and responsibilities of professional journalists. Students become proficient in the gathering and reporting of information through the Oakmont newspaper, *The Oakmonitor*. Students are involved in all aspects of journalism required for publication of a newspaper. Topics include generating story ideas, newsgathering techniques, journalism ethics, news judgment, news sources, interviewing, and organizational patterns. This course may be taken multiple times for credit during a student’s four-year program.

### **186 Creative Writing** (Grades 10,11,12)

Five blocks per week-Full semester-1.00 Credit

Creative Writing is designed to enhance students’ writing skills as well as to explore various writing genres. Within these genres, students learn literary techniques and strategies to make their own writing more effective. Students use process writing to revise and improve their writing as well as their peers’ texts. As students improve their abilities to produce effective, powerful pieces, they create portfolios that may be submitted for publication. This course may be taken multiple times for credit during a student’s four-year program.

### **188 Speech and Personal Communication for the 21<sup>st</sup> Century** (Grades 10,11,12)

Five blocks per week- Full semester-1.00 Credit

The art of effective communication is one of the most powerful skills a person can possess. This course offers students hands-on opportunities to learn techniques of effective communication that will be useful throughout their lives. The course will explore communication in these areas:

- intrapersonal (understanding oneself);
- interpersonal (building strong one-to-one skills);
- small and large groups (understanding how people interact);
- public speaking (presenting formal and informal presentations); and
- social media and mass media (understanding the power and role of each).

Students will participate in individual and group activities and presentations throughout the course.

## **SOCIAL STUDIES**

Students at Oakmont are required to take three social studies classes. Students must take at least one of these: Ancient to 1763, Early Modern 1763-1900, or Globalism and Terror 1989-Present. In addition, students are required to take US and the World: Twentieth Century 1900-1989 as well as one additional social studies elective. All students are encouraged to take a fourth social science elective course, especially during their senior year.

**(280) Foundations: Ancient to 1763** (Open to grades 9, 10, 11, and 12, recommended for grades 9 or 10)

Five blocks per week-Full Semester- 1.00 Credit

This course provides the background to the major themes running through world history; trade, world religions, and empires. Settlement of North America as an extension of European colonization and the Reformation will be covered.

**(281) Foundations: Ancient to 1763 Honors** (Open to grades 9, 10, 11, and 12, recommended for grades 9 or 10)

Five blocks per week-Full Semester- 1.00 Credit

This course provides the background to the major themes running through world history; trade, world religions, and empires. Settlement of North America as an extension of European colonization and the Reformation will be covered. Students enrolled in this class will be required to complete additional outside reading of primary and secondary sources. Lengthier and more complicated writing assignments can also be expected. This course, like other honors-level history courses, will develop the skills necessary to be successful in an AP history course.

**(282) US and the World: Early Modern 1763-1900** (Open to grades 10, 11, and 12, recommended for grades 9 or 10)

Five blocks per week-Full Semester- 1.00 Credit

This course explores the causes and effects of various revolutions; intellectual revolution of the Enlightenment, American, French, and Industrial Revolutions. American Civil War and Imperialism will also be covered.

**(283) US and the World: Early Modern 1763-1900 Honors** (Open to for grades 10, 11, and 12, recommended for grades 9 or 10)

Five blocks per week-Full Semester- 1.00 Credit

This course explores the causes and effects of various revolutions; intellectual revolution of the Enlightenment, American, French, and Industrial Revolutions. American Civil War and Imperialism will also be covered. Students enrolled in this class will be required to complete additional outside reading of primary and secondary sources. Lengthier and more complicated writing assignments can also be expected. This course, like other honors-level history courses, will develop the skills necessary to be successful in an AP history course.

**(284) US and the World: Twentieth Century 1900-1989** (Grades 10, 11, 12)

Five blocks per week-Full Semester- 1.00 Credit

This **course is a graduation requirement**. The world wars, Cold War, reform movements, and colonial independence movements will be covered in this class.

**(285) US and the World: Twentieth Century 1900-1989 Honors (Grades 10, 11, 12)**

Five blocks per week-Full Semester- 1.00 Credit

This **course is a graduation requirement**. The world wars, Cold War, reform movements, and colonial independence movements will be covered in this class. Students enrolled in this class will be required to complete additional outside reading of primary and secondary sources. Lengthier and more complicated writing assignments can also be expected. This course, like other honors-level history courses, will develop the skills necessary to be successful in an AP history course.

**(286) US and the World: Globalism and Terror: 1989-Present (Open to Grades 11, 12)**

Five blocks per week-Full Semester- 1.00 Credit

This course examines the expansion of the historical force of globalization, the technologies and ideas driving the process, and its impact on the US and world since the end of the Cold War and end of the Soviet Union. In addition to globalization, the class will examine the backlash to globalization in the form of the rise of Islamic fundamentalism and the globalization of disease and groups using violence and some of the very tools responsible for the expansion of globalization. Finally, the class will look at how globalization contributed to the Great Recession.

**(287) US and the World: Globalism and Terror: 1989-Present Honors (Open to Grades 11, 12) Five blocks per week-Full Semester- 1.00 Credit**

This course examines the expansion of the historical force of globalization, the technologies and ideas driving the process, and its impact on the US and world since the end of the Cold War and end of the Soviet Union. In addition to globalization, the class will examine the backlash to globalization in the form of the rise of Islamic fundamentalism and the globalization of disease and groups using violence and some of the very tools responsible for the expansion of globalization. Finally, the class will look at how globalization contributed to the Great Recession. Students enrolled in this class will be required to complete additional outside reading of primary and secondary sources. Lengthier and more complicated writing assignments can also be expected. This course, like other honors-level history courses, will develop the skills necessary to be successful in an AP history course.

**240 Advanced Placement World History (Grades, 10, 11,12) (Not offered 2019-2020)**

Five Blocks per week second semester - 1.0 Credit

Course Sequence: For enrollment in *AP World History*, students need to have completed *Foundations*, and *US and the World: Early Modern World*, both at the honors level. *AP World History* develops greater understanding of global processes and contacts in different types of human societies. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies. It makes extensive use of primary and secondary source readings and stresses the development of communication skills for students planning to attend competitive four-year colleges and universities. A written examination on the summer reading will be administered prior to the beginning of class. Students must take the Advanced Placement examination in order to receive AP quality points.

**250 Advanced Placement United States History (Grades 10, 11, 12)**

Five blocks per week - 1.00 Credit

Course Sequence: For enrollment in *AP US History*, students need to have completed *US and World: Early Modern World* at the honors level. In *AP United States History*, students will examine in depth the ideas, events, and persons who shaped our nation from 1865 to the present. *Advanced Placement United States History* is a college course taught at the high school level. Students are required to take the AP Examination near the end of the course to receive AP quality points. Students who have previously taken both U.S. and World

History courses: *Ancient to 1763 and Early Modern* will be also be prepared to take the AP World History examination after completion of this course, Advanced Placement United States History.

### **257 Sociology** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

The main objective of this course is student involvement and concern about society as it relates to the student. Students will evaluate their active responsibility to be thoughtful, reflective and accepting young citizens. The following areas are investigated from a sociological point of view: social structure (groups, social interaction, deviance, and social control), individuals (adolescence), inequality, racism, poverty, institutions (such as family), and social change. Students will communicate using multiple modes of expression such as audiovisual media, readings, debates/discussions, and research methods. College prep level courses will concentrate on the more important subject matter topics, include an increased number of critical thinking exercises (e.g. analysis of primary source documents, use of historical thinking skills, etc.) done cooperatively, and slightly fewer communication performances, such as essays and presentations.

### **258 Psychology** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

This course will focus on a broad overview of psychology emphasizing social and developmental psychology. Students will be asked to explore questions such as: How do we learn through association and reinforcement? What influence do parents have on their children's personality? How do peers influence our behaviors? What determines whether a person's behavior is normal or abnormal? Students will work collaboratively to complete a school-wide research project using an experimental method. Students will also communicate their understanding of a chosen psychological disorder through the creation of a themed product utilizing art and written expression. College prep level courses will concentrate on the more important subject matter topics, include an increased number of critical thinking exercises such as case study analysis both independently and cooperatively, and slightly fewer communication performances, such as essays and presentations.

### **263 Economics and Government** (Grades 10, 11, 12)

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of Ancient or Early Modern course. This course allows students to demonstrate responsibility by exploring how they as citizens are connected to the greater world, past, present, and future. The roads that the students will travel to reach this destination are economics, government and history. The course will focus the major contemporary topics in economics and government at the national, state and local level. Students will develop critical thinking and communication skills by conducting independent research in the social studies and by discussing with town officials local economic and political issues. College prep level courses will concentrate on the more important subject matter topics, include an increased number of critical thinking exercises (e.g. analysis of primary source documents, use of historical thinking skills, etc.) done cooperatively, and slightly fewer communication performances, such as essays and presentations.

### **267 Women in World History** (Grades 10, 11, 12-)

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of Ancient or Early Modern courses. Traditional history courses have more often than not focused on key events played out by men. This is "history which is seen through only a half opened window..." In an effort to expose you to the fully opened window and to foster citizenship in a global world, this course will include newer interpretations of history by focusing more on the contributions of women throughout the world and over time. Students will think critically about topics such as World Women's Rights' Movements, Women and Veiling, Cultural practices of women around the world, World Women and their fight for Peace and Medieval Women, to name just a few. College prep level courses will concentrate on the more

important subject matter topics, include an increased number of critical thinking exercises (e.g. analysis of primary source documents, use of historical thinking skills, etc.) done cooperatively, and slightly fewer communication performances, such as essays and presentations.

### **268 Women in World History Honors** (Grades 10, 11, 12)

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of Ancient or Early Modern course. Traditional history courses have more often than not focused on key events played out by men. This is “history which is seen through only a half opened window...” In an effort to expose you to the fully opened window and to foster citizenship in a global world, this course will include newer interpretations of history by focusing more on the contributions of women throughout the world and over time. Students will think critically about topics such as World Women’s Rights’ Movements, Women and Veiling, Cultural practices of women around the world, World Women and their fight for Peace and Medieval Women, to name just a few. Honors level courses will have extra historical content, an increased number of individual critical thinking exercises (e.g. analysis of primary source documents, use of historical thinking skills, etc.), and more communication related individual performances, such as essays and presentations. This course, like other honors-level history courses, will develop the skills necessary to be successful in an AP history course.

## **FOREIGN LANGUAGES**

### **331 French 1** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

This course teaches students to communicate in basic French through a wide variety of speaking, listening, reading and writing activities. Problem solving and decision making skills will be enhanced as students develop the vocabulary and grammatical knowledge necessary to handle everyday tasks. Student progress will be monitored through quizzes, tests in all 4 skills, daily participation in an atmosphere of mutual respect, and a variety of projects. A wide range of media is used in addition to the text – CD Rom, games, films, flashcards, online resources and webquests. Throughout the course we will explore the customs and culture of French speaking regions of the world and begin the journey toward global citizenship and understanding.

### **332 French 2** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of French 1 and Instructor recommendation.

French II greatly expands the students’ vocabulary and grammatical knowledge so that more complex conversational and written exchanges are possible using past, present and future tenses. Higher level thinking and decision-making skills will be increasingly employed as students strive to solve more complex communication challenges and express opinions in the target language. Students will be responsible for managing their online-resource time wisely to enhance their vocabulary knowledge. Student progress will continue to be monitored through quizzes, tests in all 4 skills, daily participation and a variety of projects. The history, geography, music, literature and customs of French speaking countries will be explored further, thus enhancing the global respect and awareness of the students. Students should achieve a grade of “C” or better in French 1 to be successful in this course. Students who don’t complete French 1 with a “C” or better should consider taking French 1 Review prior to this course.

### **333 French 3 Honors** (Grades 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of French 2 and Instructor recommendation.

This course will continue to develop students’ ability to communicate in the French language, now including the full range of tenses and the nuance of the subjunctive mood, while simultaneously expanding their

awareness and respect for French culture. Increasingly challenging vocabulary and linguistic concepts will be presented. French media, films, recordings, and literature will be used to sharpen students' comprehension and decision-making skills. Written and spoken expressive language skills will be addressed through class activities and projects, as well as more in-depth exploration of the culture and art of the French speaking world. Assessment will continue to be in all 4 skill areas. Students should achieve a grade of "C" or better in French 2 to be successful in this course. Students who don't complete French 2 with a "C" or better should consider taking French 2 Review prior to this course.

### **334 French 4 Honors** (Grades 11, 12)

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of French 3 and Instructor recommendation

Students are expected to demonstrate increasing proficiency in speaking, listening, reading, and writing. French is spoken almost exclusively in class at this level. Students will acquire new vocabulary from French news journals, literature, theatre, and film. There is a greater emphasis on essay writing and the ability to orally produce more advanced language. Self-direction will be important as students will be required to use various media to enrich their language acquisition process on their own, especially online resources in the language laboratory. French and Francophone cultures will be explored in greater depth and applied to both written and oral assessments and projects. Students will have the opportunity to practice their pronunciation through various native French speaker recordings.

### **351 Spanish 1** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

This course emphasizes correct Spanish pronunciation to promote oral mastery and an appropriate accent. The basic skills: listening, speaking and presenting, reading and writing are emphasized, although the oral foundation is given precedence. Concentration is placed on comprehension and speaking while laying a strong grammar foundation. The cultural aspects of Latin-America and Spain are also included in the reading lessons, videos and internet activities. Weekly visits to the language laboratory provide opportunities for practice using technology by using on-line software and ancillary textbook materials.

### **352 Spanish 2** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 credit

Course Sequence: Completion of Spanish 1

In the second course, there is a greater concentration on grammatical structures, particularly the imperfect and preterit tenses. Oral method is maintained and is evidenced in the various skits or dialogs in which individual students participate. The skills of reading, writing, speaking and presenting, and listening are also emphasized. In addition to the text, outside readings, videos and internet activities provide excellent insight into various cultural aspects of Spanish speaking countries. Weekly visits to the language laboratory provide opportunities for practice using technology through on-line software and ancillary textbook materials.

Students should achieve a grade of "C" or better in Spanish 1 to be successful in this course. Students who don't complete Spanish 1 with a "C" or better should consider taking Spanish 1 Review prior to this course.

### **353 Spanish 3 Honors** (Grades 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Spanish 2

Spanish is the prime method of communication in class activities to further develop the student's self-expression in the language using multiple modes of expression which include various technologies. There is greater concentration on group discussions and the development of writing skills. Critical thinking is enhanced as students learn to write creative essays and to speak in front of the class on various topics. Reading materials consist of books, magazine articles and short stories. Grammar practice continues but is not the focus of

coursework. Citizenship and Culture are interwoven throughout and reinforced through the use of video and other recorded Spanish material. Internet research is included in a major country project at this level encouraging student responsibility and decision-making as they are working independently and collaboratively to accomplish their task. Weekly visits to the language laboratory provide opportunities for practice using on-line software and ancillary textbook materials.

Students should achieve a grade of “C” or better in Spanish 2 to be successful in this course. Students who don’t complete Spanish 2 with a “C” or better should consider taking Spanish 2 Review prior to this course.

### **354 Spanish 4 Honors** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Spanish 3 and Instructor recommendation

Students are expected to demonstrate increasing proficiency in the skills of speaking, listening, reading and writing as they gather, interpret, and evaluate information. . Spanish is spoken almost exclusively at this level. Oral topics are based upon reading selections from Spanish magazines, short stories and novels. There is further development of essay writing and greater emphasis on reading and the ability to summarize, synthesize, discuss and analyze in the language. Spanish Culture is introduced through exploration and examination of some works of the Spanish Masters. Students continue learning about cultural norms and about understanding and accepting the rights and responsibilities of citizens in a diverse democratic society through exposure to literature, video and other recordings. Internet research is encouraged for developing listening skills and for project work. Student responsibility and decision-making skills are enhanced as they are working independently and collaboratively to accomplish their tasks. . Weekly visits to the language laboratory provide opportunities for practice using online software, podcasts and ancillary textbook materials.

### **355 Spanish 5 Honors** (Grades 11, 12)

### **360 Advanced Placement Spanish** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Spanish 4 and Instructor recommendation.

The Spanish 5 course covers the equivalent of a third year college course in advanced Spanish composition and conversation. It encompasses aural/oral skills, reading comprehension, grammar, and composition. Such a course, emphasizing the use of Spanish for active communication, has the following objectives; the ability to comprehend formal and informal spoken Spanish, the acquisition of vocabulary and grasp of structure to allow the easy, accurate reading of newspaper and magazine articles, as well as modern literature in Spanish, the ability to compose expository passages and the ability to express ideas orally with accuracy and fluency. The course might best reflect intellectual interests shared by the students and teacher. Materials might include recordings, films, newspapers and magazines. The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines rather than to the mastery of any specific subject matter. Extensive training in the organization and writing of compositions must be an integral part of the course. Preparation for taking the AP test is a focus of this course. Weekly visits to the language laboratory provide opportunities for practice using online software, podcasts and ancillary textbook materials. **Students enrolled in AP Spanish are required to take the AP Spanish examination in the spring to receive AP quality points.**

## MATHEMATICS

The Oakmont Mathematics curriculum is designed to provide learning experiences that prepare all students for success in careers or higher education. The following chart offers several possible course pathways for students with a wide range of academic abilities, given they meet the requirements for each subsequent course.

### **Oakmont Four Year Math Sequence**

#### College Prep Students

##### **Freshman Year**

Alg & Geo Preview / Alg 1, pt. 1  
Alg & Geo Preview / Alg 1, pt. 1  
Alg 1, pt. 1 / Alg 1, pt 2  
Alg 1, pt. 1 / Alg 1, pt 2  
Alg 1, pt. 1 / Geometry  
Alg 1, pt 1/ Geometry

##### **Sophomore Year**

Alg 1, pt. 2 / Geometry  
Alg 1, pt. 2 / Geometry  
Geometry  
Geometry  
Alg 1, pt. 2  
Alg 1, pt. 2

##### **Junior/Senior Years**

Alg 2 Essentials, pt. 1 / Alg 2 Essentials, pt. 2  
Alg 2 Essentials, pt.1 / Alg 2 Essentials, pt. 2 / Math Modeling  
Alg 2, pt. 1 / Alg 2, pt. 2 / PreCalc / Calculus  
Alg 2, pt. 1 / Alg 2, pt. 2 / PreCalc / Prob. & Stats  
Alg 2, pt. 1 / Alg 2, pt. 2 / Prob. & Stats  
Alg 2, pt. 1 / Alg 2, pt. 2 / Prob. & Stats / Math Modeling

#### Honors Students

##### **Freshman Year**

Algebra 1H / Geometry H

##### **Sophomore Year**

Alg 2, pt. 1 H / Alg 2, pt. 2 H

##### **Junior/Senior Years**

PreCalc H / Calculus AP

#### **419 Algebra & Geometry Preview (Grades 9, 10)**

Five blocks per week- Full Semester-1.00 Credit

This is the first in a two-semester sequence of courses for students who need assistance in preparing for success in Algebra 1 and courses beyond. Topics to be mastered include: number and operation, powers, roots, exponents, precise communication using mathematical vocabulary, and strategies for persevering in solving a variety of problems. Through guided readings and listening skills, students will be able to interpret, synthesize and evaluate information that is relevant to solving problems. Data analysis, probability, geometry of linear graphs, related changes in measurement, geometric patterns, similarity and formulae for two and three-dimensional objects will be included.

#### **413 Algebra 1 Part 1 (Grade 9, 10, 11)**

#### **414 Algebra 1 Part 2 (Grade 9, 10, 11)**

Five blocks per week Full Year-2.00 Credit

Course Sequence: Completion of Algebra 1, Part 1 for Algebra 1, Part 2

These courses are designed to develop mastery of Algebra 1 mathematical concepts over a longer period of time. These courses will focus on four critical areas: (1) deepen and extend understanding of linear and exponential relationships; (2) contrast linear and exponential relationships with each other and engage in methods for analyzing, solving, and using quadratic functions; (3) extend the laws of exponents to square and cube roots; and (4) apply linear models to data that exhibit a linear trend. Along with the four critical areas, the course will also incorporate the use of critical thinking, including repeated reasoning, and precise written and oral communication. The use of graphing calculators will be introduced in this course: A TI-83 or TI-84 graphing calculator is recommended. Upon completion of the course students should be able to solve a variety of algebraic problems individually and collaboratively.

#### **416 Algebra 1 Honors (Grade 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

The fundamental purpose of the Algebra 1 course is to formalize and extend the mathematics that students have learned. Concepts covered in this course include the real number system, polynomials, rational expressions and equations, inequalities, linear, quadratic, and exponential functions, and probability and statistics. This course will focus on four critical areas: (1) deepen and extend understanding of linear and exponential relationships; (2) contrast linear and exponential relationships with each other and engage in methods for analyzing, solving,

and using quadratic functions; (3) extend the laws of exponents to square and cube roots; and (4) apply linear models to data that exhibit a linear trend. Along with the four critical areas, the course will also incorporate the use of critical thinking, including repeated reasoning, and precise written and oral communication. The use of graphing calculators will be introduced in this course: A TI-83 or TI-84 graphing calculator is recommended. Upon completion of the course students should be able to solve a variety of algebraic problems individually and collaboratively. At the honors level, this course will introduce concepts at a faster pace and explore topics at a deeper level than course 413 and 414. Students need to receive a teacher recommendation and a qualifying score on the placement test for this course.

#### **426 Geometry Honors** (Grade 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

The fundamental purpose of the Geometry course is to formalize and extend students' geometric experiences with emphasis on precise communication and logical repeated reasoning while working independently and collaboratively. Students will practice perseverance in solving problems while looking to discern patterns and derive general methods and shortcuts. Concepts covered in this course include congruence, similarity, right triangles, trigonometry, circles, measurement, and probability and statistics. The course will focus on six critical areas: (1) establish criteria for congruence of triangles based on rigid motions; (2) establish criteria for similarity of triangles based on dilations and proportional reasoning; (3) informally develop explanations of circumference, area, and volume formulas; (4) apply the Pythagorean Theorem to the coordinate plane; (5) prove basic geometric theorems; and (6) extend work with probability. At the honors level, this course will introduce concepts at a faster pace and explore topics at a deeper level than course 427. Students need to achieve a final grade of 80 or above in Algebra 1 and receive a teacher recommendation for this course.

#### **427 Geometry** (Grade 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

The fundamental purpose of the Geometry course is to formalize and extend students' geometric experiences with emphasis on precise communication and logical repeated reasoning while working independently and collaboratively. Students will practice perseverance in solving problems while looking to discern patterns and derive general methods and shortcuts. Concepts covered in this course include congruence, similarity, right triangles, trigonometry, circles, measurement, and probability and statistics. The course will focus on six critical areas: (1) establish criteria for congruence of triangles based on rigid motions; (2) establish criteria for similarity of triangles based on dilations and proportional reasoning; (3) informally develop explanations of circumference, area, and volume formulas; (4) apply the Pythagorean Theorem to the coordinate plane; (5) prove basic geometric theorems; and (6) extend work with probability.

#### **430 Advanced Mathematical Concepts** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Credit Course Sequence: Completion of Algebra 2.

The Advanced Mathematical Concepts course reviews and extends algebraic concepts for students who have already taken Algebra 2. Course topics include, but are not limited to, operations with rational and irrational expressions, factoring of rational expressions, linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, properties of higher degree equations, and operations with rational and irrational exponents. The focus of this course is on providing a solid foundation in quantitative reasoning, critical thinking, and problem solving. Studies will include mathematical functions, graphing techniques, and applications in conjunction with algebra and geometry concepts.

**431 Algebra 2 Honors, part 1** (Grade 9, 10, 11, 12)

**432 Algebra 2 Honors, part 2** (Grade 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Algebra 1

Building on their work with linear, quadratic, and exponential functions from Algebra 1, students will extend their repertoire of functions to include logarithmic, polynomial, rational, trigonometric, and radical functions in this Algebra 2 course. Concepts covered in this course also include the complex number system, vectors, matrices, polynomials, rational expressions and equations, inequalities, and probability and statistics. The course will focus on four critical areas: (1) relate arithmetic of rational expressions to arithmetic of rational numbers; (2) expand understandings of functions and graphing to include trigonometric functions; (3) synthesize and generalize functions and extend understanding of exponential functions to logarithmic functions; and (4) relate data display and summary statistics to probability and explore a variety of data collection methods. Along with the four critical areas, the course will also incorporate the use of critical thinking, including repeated reasoning, and precise written and oral communication. Upon completion of the course students should be able to solve a variety of algebraic problems individually and collaboratively. The use of technology will be an integral part of this course and graphing calculators will be used frequently: A TI-83 or TI-84 graphing calculator is recommended. At the honors level, this course will introduce concepts at a quicker pace and explore topics at a deeper level than course 433-437. Students need to achieve a final grade of 80 or above in Algebra 1 and receive a teacher recommendation for these courses. Students need to successfully complete the Geometry course prior to entering part 2.

**433 Algebra 2, Part 1** (Grades 10, 11, 12)

**437 Algebra 2, Part 2** (Grades 10, 11, 12)

Course Sequence: Completion of Algebra 2, Part 1

Five blocks per week Full Year-2.00 Credit

Completion of Algebra 2 is critical to success in college. This course is designed for students who would like to take a slower approach to the introduction and mastery of mathematical concepts typically covered in an Algebra 2 course. Building on their work with linear, quadratic, and exponential functions from Algebra 1, students will extend their repertoire of functions to include logarithmic, polynomial, rational, trigonometric, and radical functions in this Algebra 2 course. Concepts covered in this course also include the complex number system, vectors, matrices, polynomials, rational expressions and equations, inequalities, and probability and statistics. The course will focus on four critical areas: (1) relate arithmetic of rational expressions to arithmetic of rational numbers; (2) expand understandings of functions and graphing to include trigonometric functions; (3) synthesize and generalize functions and extend understanding of exponential functions to logarithmic functions; and (4) relate data display and summary statistics to probability and explore a variety of data collection methods. Along with the four critical areas, the course will also incorporate the use of critical thinking, including repeated reasoning, and precise written and oral communication. Upon completion of the course students should be able to solve a variety of algebraic problems individually and collaboratively. Students will not be allowed to continue on to Part 2 unless they have successfully completed Part 1. The use of technology will be an integral part of this course and graphing calculators will be used frequently: A TI-83 or TI-84 graphing calculator is recommended

**440 Algebra 2 Essentials, Part 1** (Grades 10, 11, 12)

**441 Algebra 2 Essentials, Part 2** (Grades 10, 11, 12)

Course Sequence: Completion of Algebra 2, Part 1

Five blocks per week Full Year-2.00 Credit

Completion of Algebra 2 is critical to success in college. This course is designed for students who would like to take a slower approach to the introduction and mastery of mathematical concepts typically covered in an Algebra 2 course. Building on their work with linear, quadratic, and exponential functions from Algebra 1,

students will extend their repertoire of functions to include logarithmic, polynomial, rational, trigonometric, and radical functions in this Algebra 2 course. Concepts covered in this course also include the complex number system, vectors, matrices, polynomials, rational expressions and equations, inequalities, and probability and statistics. The course will focus on four critical areas: (1) relate arithmetic of rational expressions to arithmetic of rational numbers; (2) expand understandings of functions and graphing to include trigonometric functions; (3) synthesize and generalize functions and extend understanding of exponential functions to logarithmic functions; and (4) relate data display and summary statistics to probability and explore a variety of data collection methods. Along with the four critical areas, the course will also incorporate the use of critical thinking, including repeated reasoning, and precise written and oral communication. Upon completion of the course students should be able to solve a variety of algebraic problems individually and collaboratively. Students will not be allowed to continue on to Part 2 unless they have successfully completed Part 1. The use of technology will be an integral part of this course and graphing calculators will be used frequently: A TI-83 or TI-84 graphing calculator is recommended

#### **447 Precalculus Honors (Grades 11, 12)**

Five blocks per week-Full Semester -1.00 Credit

Course Sequence: Completion of Algebra 2 (parts 1 & 2)

This course is required for all students intending to study calculus in the future and is a good choice for any student who plans to continue their education in an engineering, business or a science related field. The course will focus on 4 critical areas: (1) extend work with complex numbers; (2) expand understanding of logarithmic, exponential, and trigonometric functions; (3) use characteristics of polynomial and rational functions to sketch graphs of those functions; and (4) perform operations with vectors. Graphing calculators are an integral part of the course and, therefore, will be required for all students. Emphasis will be placed on active participation through modeling, technology, critical thinking, group activities, and precise communication in mathematics. As an honors course, this course will address topics at a quicker pace and explore concepts at a deeper level than course 448. Students need to achieve a final grade of 80 or above in Algebra 2 and receive a teacher recommendation for this course.

447 Precalculus Honors

OR

452 Pre-AP Precalculus

(Grades 11, 12) Five blocks per week-Full Semester -1.00 Credit Course Sequence: Completion of Algebra 2 (parts 1 & 2)

This course is required for all students intending to study calculus in the future and is a good choice for any student who plans to continue their education in an engineering, business or a science related field. The course will focus on 4 critical areas: (1) extend work with complex numbers; (2) expand understanding of logarithmic, exponential, and trigonometric functions; (3) use characteristics of polynomial and rational functions to sketch graphs of those functions; and (4) introduce the graphical and algebraic concept of limits. Graphing calculators are an integral part of the course and, therefore, will be required for all students. Emphasis is placed on active participation through modeling, technology, critical thinking, group activities, and precise communication in mathematics.

The difference between the two courses will be in the pacing, depth, and potential for extra topics. If time allows in the Pre-AP course, additional topics may include: parametric equations, matrix algebra, conic sections, or other introductory calculus concepts such as derivatives.

The Honors course is designed to prepare students Honors Calculus.

The Pre-AP course is designed to prepare students for AP Calculus.

#### **458 Probability and Statistics (Grades 11, 12)**

Five blocks per week-Full Semester - 1.00 Credit

Course Sequence: Completion of Algebra 2 (parts 1 & 2)

This course is an elective for those students wishing to continue their study in mathematics. Many academic programs at the college level include Statistics as a requirement, and some knowledge of statistics is necessary to be an informed citizen. The focus of this course will be probability and statistics, which blends calculation and deductive thinking, real-world examples and problems, decision-making, and the experimental procedures. The following standards will be covered: interpreting categorical and quantitative data, making inferences and justifying conclusions, conditional probability and the rules of probability, and using probability to make decisions. The use of technology will be an integral part of this course and graphing calculators will be used frequently. A TI-83 or TI-84 graphing calculator is recommended. Students should have achieved a final grade of 70 or better in Algebra 2 to be prepared for this course.

#### **466 Calculus Honors (Grade 12)**

Five Blocks per week-Full Semester-1.00 credit

Course Sequence: Completion of Precalculus

Calculus is the mathematics of change and motion. This course will review key concepts learned in the Precalculus course and apply these concepts to the study of limits, derivatives, integration, and their applications. Emphasis will be placed on active participation through modeling, critical thinking, group learning activities, and precise communications in mathematics. Students will use graphing calculators as a tool to support problem solving. As an honors course, this course will address topics at a quicker pace and explore concepts at a deeper level. Students need to achieve a final grade of 80 or above in Precalculus, and receive a teacher recommendation for this course.

#### **470/471 Advanced Placement Calculus AB (Grade 12)**

Five Blocks per week first semester. Alternate days second semester - 1.50 Credit

Course Sequence: Completion of Precalculus

This course follows the AP Calculus outline as presented by the College Board. Topics covered are functions and graphs, limits and continuity, differential calculus, integral calculus and the application of these concepts to real world problems. Emphasis will be placed on active participation through modeling, critical thinking, group learning activities, and precise communications in mathematics. Students will use graphing calculators as a tool to support problem solving and communications. Students need to achieve a final grade of 80 or above in Precalculus, and receive a teacher recommendation for this course. This course prepares students to take the AP Calculus AB exam. There is the potential to earn college credit for this course. Students are required to participate in the alternate day second semester portion of the course and to take the AP Exam to receive AP credit.

### **SCIENCE**

*All science course have been recently updated to align with the Next Generation Science Standards in conjunction with the Massachusetts State Frameworks.*

#### **531 Biology Honors (Grade 9)**

Five blocks per week-Full semester-1.00 Credit

**Note:** This is a required course for graduation

The purpose of Biology is to provide students with an opportunity to understand how living organisms function, pass on traits, evolve and exist in an environment. Through a combination of laboratory investigations, discussions, and various interactive media, students develop central concepts that illustrate cellular processes, genetics, evolution, and a basis for ecology. Students will develop research skills to gather, interpret, synthesize and evaluate information and evidence while using a variety of scientific methods and technologies. Students will demonstrate their learning through creative, multiple modes of expression using various technologies and tools. This course prepares students to pass the MCAS exam in Biology. Biology 531H, unlike 533, is taught at an accelerated pace; therefore self-motivation and strong reading skills are required for success at the honors level.

### **533 Biology (Grade 9)**

Five blocks per week-Full semester-1.00 Credit

**Note:** This is a required course for graduation

The purpose of Biology is to provide students with an opportunity to understand how living organisms function, pass on traits, evolve and exist in an environment. Through a combination of laboratory investigations, discussions, and various interactive media, students develop central concepts that illustrate cellular processes, genetics, evolution, and a basis for ecology. Students will develop research skills to gather, interpret, synthesize and evaluate information and evidence while using a variety of scientific methods and technologies. Students will demonstrate their learning through creative, multiple modes of expression using various technologies and tools. This course prepares students to pass the MCAS exam in Biology.

### **(530) Principles of Biology (Grades 9, 10)**

Five blocks per week-Full semester-1.00 Credit

**Note:** Recommendation required.

Principles of Biology is designed to provide students with an overview of how living organisms function, pass on traits, evolve and exist in an environment. Through a combination of lab exercises, guided notes, readings and independent research projects, students will learn the core concepts of biology. With a heavier emphasis on testing practices and skill development, this course prepares students to pass the Biology MCAS exam and also aligns with Next Generation Science Standards and the state frameworks.

### **536 Geology & Oceanography (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit \*Spring Semester Only

This earth science course studies and investigates geology and oceanography. Students will learn these two Earth Systems and discover how they work together. In Geology, students will learn the basics of rock formation, plate tectonics, and earth formation. In Oceanography, students will learn about the forming of the oceans, ocean currents, ocean life, and erosion. The scientific method will be used in frequent hands-on projects and internet simulations investigating these topics.

### **537 Meteorology & Astronomy (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit \*Fall Semester Only

This earth science course studies and investigates meteorology and astronomy. Students will learn these two Earth Systems and their properties. In Meteorology, students will learn the basics of the atmosphere, weather systems, cloud formations, and atmospheric relationships with space. In Astronomy, students will learn about the forming of the universe and galaxies, solar systems, star formation, space. The scientific method will be used in frequent hands-on projects and internet simulations investigating these topics.

### **541 Chemistry Honors (Grades 10, 11, 12)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of Algebra 1

The purpose of Chemistry is to emphasize the structure of the atom, the chemical bond and chemical changes. Students learn to solve related mathematical problems, perform experiments and apply careful observation and imagination in reporting results. Students are given lab problems and must utilize critical thinking skills as well as application of concepts to not only solve the problems but to communicate their results. As an honors course, this course is taught at an accelerated pace. To be successful in this course, students should have strong algebra/math skills and be able to work independently.

### **543 Chemistry (Grades 10, 11, 12)**

Five blocks per week-Full semester-1.00 Credit

Course Sequence: Completion of Algebra 1

The purpose of Chemistry is to emphasize the structure of the atom, the chemical bond and chemical changes. Students learn to solve related mathematical problems, perform experiments and apply careful observation and imagination in reporting results. Students are given lab problems and must utilize critical thinking skills as well as application of concepts to not only solve the problems but to communicate their results. To be successful in this course, students should have good algebra/math skills and be able to work independently.

### **545 Chemistry in the Community (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Algebra 1 or be enrolled in Algebra 1 before enrolling in this course

ChemCom is a student-centered, activity based, issues oriented chemistry course that encourages small group learning. It includes many traditional chemistry concepts as well as more biochemistry, industrial, organic and environmental chemistry than is normally encountered in a traditional high school Chemistry course. The most unique feature about ChemCom is that chemistry skills are taught on a need-to-know basis with environmental, societal and technological issues/problems determining the depth and breadth of the chemical concepts taught. Students will develop research skills to gather, interpret, synthesize and evaluate information and evidence while using a variety of scientific methods and technologies. Students will also demonstrate their learning through creative, multiple modes of expression using various technologies and tools.

### **546 Field Botany (Grades 10, 11, 12)**

Five blocks per week - Full semester - 1.00 Credit

Course Sequence: Completion of Biology

The Field Botany is a lab-based course provides the student with extensive knowledge and experience in identifying forest and field vegetation that is native to their communities. Students participate in field experiences throughout the semester, exposing them to the natural world through winter and spring. Students carry out experiments both inside and outside including plant growth and propagation methods, and observe the importance of soil nutrition, light characteristics and soil types as they relate to natural plant growth. Through field and forest observations, students become detectives, observing life cycles of plants and the changes from dormancy to leaf-out. Students will use digital technologies throughout the course to assist in field identification of local flora. Students develop observation, critical thinking skills and spatial analysis to identify plants outside. By working in teams, students develop collaboration and communication skills. Students also develop a global awareness of the role humans play in the spread of plant species throughout the world. The course provides the necessary plant knowledge to fulfill requirements at schools with majors in landscaping, horticulture, forestry, turf management or arboriculture.

### **547 Forensic Science (Grades 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Biology and Chemistry (or Chemistry in the Community)

Forensic Science is a rigorous course that requires a strong work ethic to handle the above average homework and classwork expectations. This integrated science course applies both biological and physical sciences to the

gathering, interpretation and analysis of physical evidence for legal applications. Analysis of physical evidence includes fingerprints, hair, blood, bones, insects DNA and stages of decomposition. This requires a mature attitude for occasional graphic images and strong odors. To succeed in the field of forensics requires close attention to detail, strong analytical skills, and strong lab skills (both written and verbal). All of these skills are practiced as students work through mock crime scenes, write team reports and give testimony in a mock trial. An ability to work actively and productively in teams is also essential-all work in this course is team based (just like in a real forensic work environment). This class meets the lab science requirement for graduation.

### **551 Physics Honors (Grades 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Algebra 2 and Chemistry

Those students interested in further physical science experiences pursue this course. The process of the physical sciences is stressed along with the subject matter. Analysis of the results of both experimentation and problem solving situations form the core of study. Research dealing with historical experiments in physics provides an interesting view of the scientific method. Students who have successfully completed Algebra 2 and Chemistry will be better prepared for this course. Enrollment in, or completion of, Precalculus is strongly recommended.

### **552 Applied Physics - Principles of Technology I (Grades 11, 12)**

Five block per week-Full Semester-1.00 Credit

Course Sequence: Completion of Algebra 1

This is an activity-based course in applied physics. It provides a practical understanding of the principles of mechanical, fluid, electrical and thermal systems, and the math associated with them. This program has been referred to as “Physics in Work Clothes”. Students have the opportunity to work the physical principles through numerous lab experiments and critical thinking exercises.

### **553 Environmental Studies: Ecology/Problems (Grades 10, 11, 12)**

Five blocks per week-Full semester-1.00 credit

Course Sequence: Completion of Biology

The course provides students with an introduction to ecology, global ecosystems, and current world wildlife issues. Through text, digital and online sources, students visually visit the uniqueness of planet Earth; the many habitats found on earth, and carry out ecological studies through simulation activities in class or on computers. Computers are used to create graphs, analyze field data, and access the internet for sharing data findings. Throughout the course students participate in lab activities, field studies, DVDs, computer models and local ecological monitoring near their homes. The course provides students with critical and analytical thinking skills necessary to understand existing and potential global ecological problems and biodiversity loss. Through collaboration and sharing, students develop an understanding of sustainability and the new role of humans as stewards of the earth.

### **554 Somatic Human Anatomy and Physiology - BODY (Grades 11, 12)**

Five Blocks per week- Full Semester- 1.00 Credit

Course Sequence: Completion of Biology and Chemistry

Human Anatomy and Physiology is an exciting and challenging in depth course that explores the body systems by emphasizing physiological mechanisms and their relation to human anatomy. It is recommended for students interested in pursuing careers in healthcare or related fields. There is a mandatory laboratory component which consists of exploring body systems using computer technology as well as, an animal dissection. This class meets the lab science requirement for graduation. Successful students in Anatomy & Physiology have completed Biology and Chemistry. They also have strong time management skills and are able to work independently.

**(565) Forest Ecology and Wildlife Management \*college prep, not honors (Grades 11, 12)**

Five blocks per week - Full Semester - 1.00 Credit

Course Sequence: Completion of Biology

The course focuses on identifying and learning about Ashburnham and Westminster's natural resources, (forests, watershed, wetlands, lakes/ponds, streams, wildlife) and the critical thinking skills needed to enhance and maintain forest and wildlife habitats. Students develop collaborative team skills and work together to prioritize, plan and manage land-use choices that enhance habitat for wildlife sustainability. Students learn how to make development decisions in the community that balance community welfare and human growth with protection of sensitive ecological areas. Students are involved in local environmental issues, learn and practice the skills needed for positive environmental decision making. Students participate in field studies, lab and research activities, challenge projects, simulations, and audio and visual technologies. Students use real world tools to see the power of technology in managing wildlife habitat. Students learn the basics of GIS (Geographic Information System) Technology using data from MASS GIS, Fisheries and Wildlife, Federal Environmental Agencies, NASA remote sensing, USGS Aerial maps and other sources. Students may participate in Vernal Pool certification using standards from the MA Natural Heritage and Endangered Species program, or may assist local community environmental groups in protection, monitoring and planning of local open space properties.

**559 Environmental Science Honors (Grades 11, 12) (offered in 2019-2020)**

Five blocks per week-Full semester-1.00 credit

Course Sequence: Completion of Biology and Chemistry

The course provides students with an introduction to ecology, global ecosystems, and current world wildlife issues. Through text, digital and online sources, students visually visit the uniqueness of planet Earth; the many habitats found on earth, and carry out ecological studies through simulation activities in class or on computers. Computers are used to create graphs, analyze field data, and access the internet for sharing data findings. Throughout the course, students participate in lab activities, field studies, DVDs, computer models and local ecological monitoring near their homes. The course provides students with critical and analytical thinking skills necessary to understand existing and potential global ecological problems and biodiversity loss. Through collaboration and sharing, students develop an understanding of sustainability and the new role of humans as stewards of the earth. This course is designed to prepare students to continue onto AP Environmental Science and is taught at an accelerated pace.

**560 Advanced Placement Environmental Science (Grades 11, 12) (Not offered in 2019-2020)**

Five blocks per week - Full Semester - 1.00 Credit

Course Sequence: Completion of Environmental Science Honors

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world with human systems, to identify and analyze environmental problems using math, chemistry and physics knowledge (including pollution and climate change impacts), to evaluate the relative risks associated with these problems on natural and human systems and to examine alternative solutions for resolving or preventing environmental problems. Students will also explore the meaning of sustainability as it relates to economics, environmental ethics and political decisions. This is a lab based course which meets all College Board requirements. Students are required to take the AP Exam to receive AP quality points.

**562 Advanced Chemistry and Physics Honors (Grade 12)**

Five blocks per week- Full Semester-1.00 Credit – Semester I only

Course Sequence: Completion of Physics and Chemistry

This course is recommended for those students who would like to participate in an accelerated science program and is required for those taking the AP Chemistry course. This course emphasizes collaboration, original research, laboratory experiments and analysis. Topics in qualitative and quantitative analysis are the core of this course. The study of atomic theory and radioactivity provides students with a better understanding of the evolution of scientific thought.

### **570 Advanced Placement Chemistry (Grade 12)**

Five blocks per week-Full Semester-1.00 Credit -- Semester II only

(Must take Adv. Chem. and Physics Semester I to complete laboratory requirements.)

Course Sequence: Completion of Advanced Chemistry and Physics

The AP Chemistry course is designed for students who wish to attain a depth of understanding of the fundamentals of chemistry. The course will be taught to meet the standards of the National AP Chemistry Curriculum. Topics covered will include atomic theory, bonding, reactions, kinetics, stoichiometry, equilibrium and electrochemistry. The course places emphasis upon critical thinking and quantitative thinking and lab work. Students will be required to take the AP Chemistry examination in the spring to receive AP quality points.

### **988 Independent Study GIS (Geographic Information System Technology) (Grades 11, 12)**

Five blocks per week- Full Semester- 1.00 credit

Course Sequence: Independent Study Application required

Students learn how to use GIS technology, a computer software program, through a series of self-taught courses online or using a manual. GIS is a computer program that links geographic information to collected field data and research information. GIS is made available through a state agency, the Massachusetts Geographic Information System (MassGIS). GIS technology enables scientists and professionals to make predictions about wildlife habitats, human impacts on natural resources, the spread of forest insect infestations, sources of water contamination, potential wildlife habitat and analysis of natural resources. The technology is used by ecologists, foresters, surveyors, law enforcement, environmental health professionals, emergency responders, fire science professionals and military organizations. Students interested in these areas should take GIS. The course is divided into three major phases. During the "skill Building Phase I", students work 5 blocks a week on individual computer skills, moving from beginner to advanced mastery. In Phase II, students explore various GIS projects carried out world-wide through available professional journals. In Phase III, students design and complete a community based independent project. The project uses their GIS skills to assist a local or a state agency or to carry out an ecological/natural resource research project. During the course students will also learn how to use GPS (Global Positioning System) technology, learn about remote sensing and satellite imaging in accessing ground data.

## **BUSINESS EDUCATION**

### **639 Business Applications and Career Exploration (Grade 10)**

Alternate Days-Full Semester-.50 Credit

Note: This is a required course for graduation. Students who have passed the Technology Competency Examination may waive this course.

The goal of this course is to expand the student's computer literacy, critical thinking, and decision-making skills with a focus on future career exploration. This course uses Windows® based computers to explore the concepts of Microsoft Office®. Students will enhance skills in word processing (Word®) and spreadsheets (Excel®). Students will also be exposed to the use of the Internet, with a research focus on career exploration. Course emphasis includes the creation, layout, and printing of professional-looking documents. The skills acquired in this course will provide students with a solid foundation in business applications, and the usage of the Internet as a research tool to investigate colleges and careers.

### **142 Basic Business Applications and Career Exploration** (Grades 10, 11, 12)

Alternate Days – Full Semester - .50 Credit

The goal of this course is to expand the student's computer literacy, critical thinking, and decision making skills with a focus on future career exploration. This course uses Windows® based computers to explore the concepts of Microsoft Office®. Students will enhance skills in word processing (Word®) and slide presentations (PowerPoint®). Students will also be exposed to the use of the Internet, with a research focus on career exploration. Course emphasis includes the creation, layout, and printing of professional-looking documents. They will also be introduced to the Naviance Program, the program they will use to explore careers, colleges, and will also be used to complete the college application process.

### **642 Personal Finance** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

The goal of this course is to equip students with the tools they need to be good financial decision-makers. Topics include: budgeting, credit cards, credit scores, banking, and insurances. Students will increase civic knowledge by learning about government and taxes. Investments, risk, and current business events will also be discussed. The stock market will be investigated by student participation in the "stock market game." This is a very practical life-skills course, combining math and money management. This course is highly recommended for all students who wish to be in control of their financial futures.

### **644 Accounting** (Grades 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Students are introduced to basic accounting concepts and career options. Emphasis on competency-based tasks prepares students for entry-level positions or for further study in accounting at the college level. Various business and financial forms are used and every student completes a practice simulation for a particular business.

### **655 Introduction to Business** (Grades 11, 12) **(Not offered in 2019-2020)**

Five blocks per week -Full Semester-1.00 Credit

This course will expose students to a variety of fields in Business studies. Students will be introduced to entrepreneurship (how to develop a business plan), management (including organizational structure and how to motivate and train employees) marketing (creating, pricing, promoting and distributing goods or services), effective customer relations, and production procedures. Instruction may consist of practical experience in developing and operating a school-based enterprise, which emphasizes effective communication skills, responsibility, and decision making in the day-to-day operation of the enterprise. This course will give students the foundation and decision-making skills for future success in the world of Business. This course is highly recommended for students interested in studying Business at the college level.

### **686 Career Exploration/Internship Program** (Grade 12)

Five blocks per week - Full Semester - 1.00 Credit

**Prerequisite:** Minimum GPA - 2.7 is required, Application process

The Career Exploration/Mentor/Internship program is designed to immerse students into the real world of careers and provide a unique opportunity to experience the career world beyond Oakmont's existing curriculum. This program is open to seniors, in good standing, who seek a challenging learning opportunity and who show a desire to gain actual exposure to real career experiences. Employer, coordinator, and student work closely together while each fulfilling certain responsibilities. The course places a strong emphasis on communication, responsibility, and decision-making skills. Because students participate in internships independently in the

community, there is a rigorous application process that requires evidence of strong career interest and a high level of personal responsibility. Transcripts, attendance, and discipline records are reviewed. Guidance counselor, course instructor, parent, and administration approval is required. Students are also responsible for providing their own transportation to internship sites. Students may need to purchase 24-hour accident coverage insurance. Positive attendance and responsible behavior are expected.

## **VISUAL ARTS**

### **721/722 3-D Design / Sculpture (Grades 9 - 12)**

Alternate Days-Full Semester-.50 Credit OR Five blocks per week-Full semester-1.00 Credit

Course Sequence: None

Working with your hands you create 3-D forms and sculptures using a variety of materials and tools. Projects focus on exploring Form and Design to construct unique objects in new imaginative ways. You learn to work with materials like clay, stone, found objects, plaster, wire, wood, metal, and recyclable materials, while incorporating digital technologies and your personal devices. Throughout the semester, you'll create a variety of original projects that exhibit your individuality, imagination and personal expression in 3-dimensions.

### **731 Graphic Design & Digital Art 1 (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

This course will introduce both the Elements of Art and the Principles of Design and their successful applications through digital media created with the computer, graphic design software, printer, scanner, and digital camera. The class will study the design process, and touch on a number of art subjects including, digital photography, graphic design, digital illustration, fashion design, package design, and typography. Projects include: digital image building, digital self-portrait, and type exploration.

### **732 Graphic Design & Digital Art 2 (Grades 9, 10, 11, 12)**

Five blocks per week- Full Semester-1.00 Credit

Course Sequence: Completion of Graphic Design & Digital Art 1

Students in this advanced course will build on the prior knowledge and experience of Graphic Design & Digital Art 1. Students will further develop their individual strengths by fine-tuning their knowledge, technique, application, and presentations. Students will be encouraged to solve "open-ended" assignments using their own ideas, techniques, and style. In addition to instruction and disciplined practice of techniques the class will investigate the history of design and explore "real world" application of computer, software, and digital cameras. Projects include: animation, digital illustration, digital photography, poster design, product design, and type exploration.

### **733 Graphic Design & Digital Art 3 Honors (Grades 10, 11, 12)**

Five blocks per week- Full Semester-1.00 Credit

Course Sequence: Completion of Graphic Design & Digital Art 2

This honors-level advanced course provides students with progressive and specialized projects involving: Animation, Digital Photography, Motion Graphics, and Information Graphics. Students' understanding, application, and presentation skills will continue to enhance their individual strengths, and provide further investigation, research and content. In addition to individual instruction and self-disciplined practice, the course will investigate the history of design, and explore current real-world applications involving careers, college portfolios, and the use of various technological tools. Students will be encouraged to solve open-ended assignments using their own ideas, techniques, and style, which will contribute to their digital art portfolio.

### **741/(740) .5 Art 1 (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 credit OR Alternate Days-Full Semester-.50 Credit

Course Sequence: None

This hands-on art course explores a variety of materials that students use to make art. Using the elements and principles of art shows students how to make unique projects and designs in new imaginative ways. Students will use a personal sketchbook, develop new technical skills, and include personal devices and digital technology to assist in their creative process. Throughout the semester students create several choice-based original artworks that express individuality, imagination, and personal expression.

**742 Art 2** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Art 1

It's all about color! Students further their hands-on experiences of making vibrantly colorful artworks using all sorts of materials. Throughout the semester students add several original artworks to their portfolio that focus on individuality, imagination, and personal expression. Each student's individual learning makes Art 2 unique for discovering new creative choices with digital technology and photography, personal devices, and of course, it's all about color!

**743 Art 3 Honors** (Grades 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Art 2

Originality, sophistication, and personal voice are the core of this upper level art course. Using the foundations of design and composition, students make complex and conceptual artworks that explore deeper meaning, personal connection and human expression. Here, students learn new skills to create "digital paintings", enhance digital photography, and explore sculpture as part of their hand crafted sketchbooks while adding to a personalized portfolio. Additionally, various colleges and programs that offer successful career paths in the visual arts are introduced, as well as the work of professional artists' in museums and galleries.

**744 Art 4 Honors** (Grade 12)

Five blocks per week-Full Semester-1.00 credit

Course Sequence: Completion of Art 3

At this advanced level, the development of a personal "concentration" in a specific area of art, and the completion of a general art portfolio will be the two primary objectives of Art IV. Additional resources prepare students for studying art at the college level or beginning a career path in the arts. Students must visit two museums or galleries to report on their findings. Individual deeper study and understanding of their own artistic processes begins through designing and creating a body of work that relates in theme, media, purpose, or style. Students show the "breadth" of their artistic development through the completion of their portfolios.

**745 Art 5 Honors** (Grade 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Art 4

This course offers the student a college-level visual arts curriculum in the high school environment. Students will be expected to produce a minimum of twelve works of art in a variety of media, techniques, and subject matter. Emphasis is placed on drawing from observation; the application of color and design principles; understanding of the fundamentals of two-dimensional design; the development of a body of work that is of the students' own choosing; recognition of the history of art and its role in the development of visual ideas; and application of the critique process. Presentations of student portfolios are showcased at the annual Evening with the Arts Exhibition as the culmination of their visual arts experience.

### **(751) Advanced Placement Art and Design (Grade 12)**

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Art 4

This course offers the student a college-level visual arts curriculum in the high school environment. Students who successfully complete the AP course may request credit from the college of university that they will attend. Students will be expected to produce a portfolio of twenty works of art in a variety of media, techniques, and subject matter. Students will submit images and writing to document their inquiry-guided investigation through practice, experimentation, and revision. Emphasis is placed on the application of color and design principles; understanding of the fundamentals of three dimensional design; and the development of a body of work that is of the students' own choosing. Students will be required to submit a portfolio for the AP Examination to receive AP quality points. Presentations of student portfolios are showcased at the annual Evening with the -Arts Exhibition as the culmination of their visual arts experience.

### **747 Art History (Grades 9 -12)**

Full Semester – Alternating Days - .50 Credit

Course Sequence: None

From the dawn of time, Art History takes students on a journey that introduces a unique learning approach for those who appreciate and like looking at art, but may shy away from a traditional art-making course. The combination of Internet and classroom experience presents students with both Western and non-Western art forms in painting, sculpture and architecture. Students discover how the visual arts serve to shape and reflect ideas, issues, and themes recorded throughout time. Additionally, students are given some hands-on activities and mini art projects throughout the course to connect historical and artistic content.

## **PERFORMING ARTS**

### **761 to 768 Concert Band (Grade 9, 10, 11, 12)**

Alternate Days- Full Year-1.00 Credit

Membership in this group is open to instrumentalists depending on ability and based on the recommendation of the band director. Music is drawn from intermediate and advanced literature. Students are expected to practice at home to prepare their music for class. Students are required to know the material presented, exercises, scales, etudes, the literature used, composer, form rhythms and keys used. Students will be assessed through daily rehearsal performance, tape submissions, preparation for class, attendance, group performance standards, practice logs, and performances (evening concerts, festivals, etc...). Participation is required at all scheduled events. Private instruction is strongly suggested. (Select 761/762 first year in band, 763/764 second year, 765/766 - Honors third year, 767/768 - Honors fourth year).

### **771 to 778 Concert Choir (Grade 9, 10, 11, 12)**

Alternate Days - Full Year -1.00 Credit

Concert Choir is an elective-selective course open to all students. This ensemble meets as entire group at each rehearsal, and will break into harmonic groups as needed. In addition to the performance, vocal skills, techniques, rhythms, tone, pitch and group balance, this course offers emphasis on performing choral music of many periods and styles, both in rehearsal and in public concerts and music festivals. Students will be assessed through daily rehearsal performance, tape submissions, preparation for class, attendance, group performance standards, practice logs, and performances (evening concerts, festivals, etc...). Students are expected to practice

at home to prepare their music for class. Participation is required at all scheduled events. Private instruction is strongly suggested. (Select 771/772 first year in choir, 773/774 second year, 775/776 - Honors third year, 777/778 - Honors fourth year).

**781 Music Appreciation** (Grades 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Music Appreciation is a tour through the world of music, from Medieval Chant through Classical, theater, film, and ends with Jazz. Much listening is involved with a strong emphasis on identification of the historical period from which the music originates. The people and events of the time that influenced the composers and their compositions will be studied.

**782 Rock and Roll – Blues to The Beatles** (Grades 9, 10, 11, 12)

Five blocks per week – Full Semester – 1.00 Credit

This history of rock and roll course is a continuation of Music Appreciation through the music of the Beatles. The course begins with the history of how Rock music began in the early 1900's with its Blues roots and moves through Country music, Surf Music, Soul, Doo-Wop, and the many styles of rock through the mid 1960's. We will discover the music of Elvis, Buddy Holly, Motown, the Beach Boys, the Beatles and many other rock legends.

**783 Rock and Roll – The British Invasion to Today** (Grades 9, 10, 11, 12)

Five blocks per week – Full Semester – 1.00 Credit

This history of rock and roll course picks up where “Blues to The Beatles” left off. The course will begin with the exploration of the British Invasion and move to the psychedelic scene of the late 1960's and early 1970's with the Doors, Grateful Dead, Jimi Hendrix, and others. As we venture into the harder rock of the 1970's we will study Led Zeppelin, Pink Floyd, Aerosmith, Queen and others. Before we study the 1980's we will study Funk, Reggae, and Punk music. Michael Jackson and Madonna will lead us through the pop artists of the 1980's and into the 1990's. The course will conclude with a look at the music of today and how rock has developed from its roots.

**788 Music Theory 1** (Grade 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Music Theory is designed for students with a serious interest in music. Music Theory 1 provides students with an advanced working knowledge of music theory and harmony. Students who select Music Theory should have a working knowledge of music through the performance and/or playing of a musical instrument. Students must be proficient in reading music before selecting this course. Music theory is the study of scales, intervals, triads, and seventh chords. Harmonizing of a melodic line or bass line, harmonic analysis, figured bass, and voice leading techniques are explored. Students will be assessed on a portfolio of music writing. Students will use a staff notebook for writing. Ear training is stressed. Students will be asked to sing casually to develop listening skills.

**769 Music Theory 2 Honors** (Grade 9, 10, 11, 12)

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Music Theory 1

Music Theory is designed for students with a serious interest in music. Students who select Music Theory should have a working knowledge of music through the performance and/or playing of a musical instrument. Students must be proficient in reading music before selecting this course. Music theory is the study of scales, intervals, triads, and seventh chords. Harmonizing of a melodic line or bass line, harmonic analysis, figured bass, and voice leading techniques are explored. Students will be assessed on a portfolio of music writing. Students will use a staff notebook for writing. Ear training is stressed. Students will be asked to sing casually to develop listening skills. In Music Theory 2 emphasis will be on student creativity through composition.

Students will continue to develop their music writing skills by writing and harmonizing original melodies, writing chord progressions, recognizing cadences, etc.

### **790 AP Music Theory (Independent Study) – (Grade 11, 12)**

5 blocks per week-Full Semester- 1.00 credit

Course Sequence: Completion of Music Theory 1, Music Theory 2, and Independent Study Application

This course introduces advanced music students to music analysis and composition. Realization of figured bass, and Analysis of repertoire, including study of motivic treatment, examination of rhythmic and melodic interaction between individual voices of a composition, and harmonic analysis of functional tonal passages.

This course will emphasize procedures based in common-practice tonality and functional triadic harmony in traditional four-voice texture (with vocabulary including no harmonic tones and secondary dominants).

Chromatic Harmony, techniques of modulation, more distant key relationships, and larger musical forms will be touched upon. A large emphasis will be placed on the development of aural skills. Students should be able to listen to musical works attentively and analytically, developing their “musical memory” and their ability to articulate responses to formal, stylistic, and aesthetic qualities of the works. Performance—using singing, keyboard, and student’s primary performance media—will also be a part of the learning process. Students taking the course must take the AP Music Theory Exam.

***NOTE: The Music Program at Oakmont includes five important co-curricular activities that are an extension of the Music curriculum. Students who are serious about developing their musical talents and skills are strongly urged to participate in the following activities:***

***Oakmont-Overlook Marching Spartans***

***Jazz Band***

***Select Choir***

***Winter Percussion***

***Winter Guard***

### **Oakmont-Overlook Marching Spartans (Grades 9, 10, 11, 12)**

Four sessions per week (**Not for Credit Course**)

Membership in marching band is open to instrumentalists in all grades by audition, based on the recommendation of the band director. Marching Band performs all year at football games, parades, and competitions throughout the state and region. Participation is required at all scheduled events from July through June. It meets four times per week after school and on weekends during football season. The marching band meets two to three times a month after the competition season. Members are required to attend Band Camp.

### **Jazz Band (Grades 9, 10, 11, 12)**

Two sessions per week-Full year (**Not for Credit Course**)

Membership is open to instrumentalists by audition, based on the recommendation of the band director.

Instrumentation will be limited to trumpet, trombone, saxophone, guitar, acoustic and electric bass, piano, and percussion. Music is drawn from all Jazz literature (blues, funk, soul, free, etc...). Students are expected to engage in substantial independent solo performance, private lessons and daily practicing. Students are expected to practice at home to prepare their music for ensemble rehearsal. Participation is required at all scheduled events (rehearsals, concerts, festivals, etc).

### **Select Choir (Grade 9, 10, 11, 12)**

One rehearsal per week -Full year (**Not for Credit Course**)

This is the most selective of all choirs. **Membership is by audition only to those students enrolled in Concert Choir for at least one semester. Unless approved by Music Director.** Select Choir performs the

most difficult grade of choral music of the major periods of musical history, as well as popular and show literature both in rehearsal and in public concerts and music festivals. Rehearsals include strong emphasis on vocal skills, tone production and intonation, musical terminology and development of a balanced ensemble sound. Students are expected to practice at home to prepare their music for ensemble rehearsal. Participation is required at all scheduled events (rehearsals, concerts, festivals, etc).

### **Oakmont-Overlook Marching Spartans - Winter Percussion (Grades 9, 10, 11, 12)**

Three sessions per week **(Not for Credit Course)**

Membership in winter percussion is open to instrumentalists in all grades by audition, based on the recommendation of the band director and percussion staff. Winter percussion performs at competitions throughout the state and region. Participation is required at all scheduled events from December through June. It meets three times per week after school and on weekends.

### **Oakmont-Overlook Marching Spartans - Winter Guard (Grades 9, 10, 11, 12)**

Three sessions per week **(Not for Credit Course)**

Membership in winter guard is open to students in all grades by audition, based on the recommendation of the band director and guard staff. Winter guard performs at competitions throughout the state and region. Participation is required at all scheduled events from December through June. It meets three times per week after school and on weekends.

## **TECHNOLOGY ENGINEERING EDUCATION**

### **821 Wood Technology (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Students design and construct a series of projects using woodworking tools and equipment. Emphasis will be placed on the designing, planning and selection phases used to construct a quality wood product. The team approach to problem solving will be used in order to create a manufacturing production sequence with an emphasis on problem solving through critical thinking and communication.

### **822 Materials and Construction (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

**Prerequisite:** "C" average, or better, in Wood Technology or Instructor recommendation.

Students will be immersed in the study of all materials, their properties, characteristics and appropriate uses. From rocks and minerals to titanium and carbon fiber, students will learn fabrication, machining and assembly techniques and skills. Students will also learn the basics of residential construction as well as the skills necessary for commercial construction. Students will demonstrate responsibility by being flexible and adaptable while working independently and collaboratively to accomplish tasks.

### **831 Communications Technology (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

This course focuses on processes that allow for communication in a variety of mediums. Students will develop an understanding of the various methods used to create a message that can be transmitted through electronic, printed or verbal means. Course emphasis includes graphic design, animation, telecommunications, television production, film and digital photography, printing, audio systems, and video systems. Students will enhance their critical thinking skills as they communicate through multiple modes of expression.

### **833 Television Production (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Course Sequence: Completion of Communications Technology or OTV Member

Television Production is designed to provide a foundation of information and skills which will assist those students who are considering a career path in the field of television and broadcasting. Principles involved in camera operation, picture composition, script writing, lighting, remote shooting, directing and many other areas will be discussed and experienced through hands-on application by the students. Students will produce broadcast quality programming which will be shown utilizing the internal television network of Oakmont. Selected productions may, at the discretion of the cable access provider, be broadcast to the communities of Ashburnham and Westminster on the educational access channel. Students will demonstrate digital citizenship as they work to inform the community by developing projects that embody the core values of the school. Students should have achieved a final grade of 70 or better in Communications Technology to be prepared for this course.

#### **841 Design Technology (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester 1.00 Credit

In this course students will learn techniques and develop the skills that designers, engineers, and architects use to plan projects. Student will learn instrument drawing (drafting) as well as computer aided design (CAD). Throughout the course students will enhance their critical thinking and communication skills as they design, construct and test their solutions to multiple design challenges.

#### **842 Engineering Design (Grades 10, 11, 12)**

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of Design Technology

In this course student will learn the methods used by engineers to solve design, manufacturing, and construction problems. Critical thinking skills are developed and reinforced throughout this course as students are required to design, fabricate, and test solutions to an engineering challenge. Students completing this course will be proficient in computer aided design (CAD) including wire frame geometry, solid modeling and assembly. Students involved in this course will compete in Oakmont's Vex Robotics Challenge. Students should have achieved a final grade of 70 or better in Design Technology to be prepared for this course.

#### **843 Architectural and Interior Design (Grades 10, 11, 12)**

Five blocks per week-Full Semester- 1.00 Credit

Course Sequence: Completion of Design Technology

This computer aided drafting course is based on the study of architectural design. Students will learn the Envisioneer software design program and will complete projects in landscape architecture, kitchen design, bathroom design, structural layout, interior design, building codes, and cost estimating. Final product presentation will be accomplished by presenting multiple modes of communication such as traditional architectural plans as well as animated fly-overs and walk-throughs. Throughout this course students will be asked to rely on their critical thinking skills to understand and design within codes and specifications. Students should have achieved a final grade of 70 or better in Design Technology to be prepared for this course.

#### **844 Advanced Engineering and Robotics Honors (Grades 11, 12)**

Five blocks per week-Full semester- 1.00 Credit

Course Sequence: Completion of Engineering Design

This third level design course allows students to explore the process of computer based control systems. Today's technology is dominated by automated functions from the simplicity of a home thermostat to the complexity of an advanced computer controlled machine. Students in this course will be challenged to invent, innovate, and problem solve as they design, build and program several autonomous devices which will act as if they had a mind of their own. Students involved in this course will facilitate Oakmont's Vex Robotics Challenge. Students should have achieved a final grade of 70 or better in Engineering Design to be prepared for success in this honors level course.

### **851 Power, Energy & Fabrication Technology** (Grades 10, 11, 12)

Five blocks per week- Full Semester-1.00 Credit

In this course students will learn the basics of power and energy as they apply to various metal fabrication techniques. Students will have the opportunity to perform techniques such as cutting, bending, welding, casting, and machining. Power and energy are also explored as they apply to internal combustion engines. Students will have a hands-on experience with engines learning about their various systems, mechanics and troubleshooting. Students will enhance their critical thinking skills through hands on experiences utilizing various tools, materials and techniques.

### **852 Power, Energy & Transportation Technology** (Grades 11, 12)

Five blocks per week- Full Semester-1.00 Credit

Course Sequence: Completion of Power, Energy & Fabrication Technology

This course continues the study of power and energy development and its uses with an in-depth study of alternative energy forms. Students will construct and experiment with many aspects of power and energy, such as mechanical, fluid and electrical systems. Transportation and transportation systems will be introduced along with the basics of automotive technology. Students will design, construct and test various transportation devices and systems. Students must be able to draw off previous design and fabrication experience to successfully communicate and complete required project work. Students should have achieved a final grade of 70 or better in Power, Energy & Fabrication Technology to be prepared for this course.

### **552 Applied Physics - Principles of Technology** (Grades 11, 12)

Five block per week-Full Semester-1.00 Credit

**Prerequisite:** Successful completion of Algebra 1 or Instructor recommendation.

This is an activity-based course in applied physics. It provides a practical understanding of the principles of mechanical, fluid, electrical and thermal systems, and the math associated with them. This program has been referred to as “Physics in Work Clothes”. Students have the opportunity to work the physical principles through numerous lab experiments and critical thinking exercises.

### **(849) Video Game Design Honors** (Grades 10, 11, 12)

Five block per week-Full Semester-1.00 Credit

Video game design is not merely fun and games, although playing and creating games is fun, the skill set involved is complicated and transferable to other aspects of engineering, manufacturing, and programming. This course will provide students with a foundation in video game design and development. Students taking this course will gain the skills necessary to develop and program video games. Whether it's designing levels and stories or writing the coding that brings everything together, students will learn the procedures used to design and develop video games from start to finish.

## **HEALTH & FITNESS**

### **Health**

#### **915 Health and Human Behavior** (Grade 9)

Alternate Days-Full Semester- .50 Credit

Note: Required course for graduation.

This course focuses on the eleven body systems and their functions. Emphasis is placed on understanding how to support a healthy body, and researching the effects negative behaviors and choices may have on these systems. In addition, issues relevant to young adults are discussed and explored, including such topics as cardiovascular health, skin cancer prevention, interpersonal relationships, sexuality, and substance abuse.

## **Fitness**

All students are required to participate in the fitness program. Students with a medical problem may be excused with a physician's written recommendation. Fitness classes are coeducational and include activities from aerobic, anaerobic, to strength training and competitive/non-competitive sports, including trust building activities. Facilities include a six lane, 400-meter track, two gymnasiums, a weight room, two tennis courts, cross-country ski trails and several athletic playing fields.

### **901 Fitness Education (Grades 9, 10)**

Alternate Days-Full Semester-.50 Credit

This course introduces students to racquet sports, non-competitive games, low level project adventure initiatives, weight training, aerobics and physical fitness training. The course will improve the students' ability to communicate and develop trust in a wide variety of fitness, motor skills and problem solving situations.

### **945 Women's Fitness (Grades 11, 12) (Not offered 2019-2020)**

Alternating Days – Full Semester – .50 Credit

This course will address specific fitness issues of concern for young women. Topics will include body image, “the female triad,” and other women’s fitness subjects. Activities will include yoga, weight training, aerobics, and nutrition logs. Participants must be female or those who identify as female.

### **946 Men's Fitness (Grades 11, 12) (Not offered 2019-2020)**

Alternating Days – Full Semester – .50 Credit

This course will address specific fitness issues of concern for young men. Topics will include body image, nutrition, positive health habits, and other fitness subjects. Activities will include weight training, cardio exercise, lifelong fitness habits, and nutrition logs. Participants must be male or those who identify as male.

### **947 Lifetime Fitness (Grades 11, 12)**

Alternating Days – Full Semester – .50 Credit

This course is designed to expose students to sports and pastimes in which they can participate throughout their lives to maintain personal fitness. Students will learn the fundamentals and be exposed to activities such as, cross country skiing, hiking, tennis, golf, yoga, aerobics, volleyball, ultimate frisbee, and other active pastimes.

### **936 Nutrition & Wellness for Life (Grades 10, 11, 12)**

Five blocks per week – Full Semester - 1 Credit

This course will explore the six essential nutrients and the role they play in the body. We will learn how to eat to stay healthy, physically active, as well as eating for sport performance. We will look at the influences of agriculture, technology, economics, politics, and cultures and how it relates to our food and wellness choices. Wellness tips will be a part of everyday activities. Focusing on coping skills to help with living a healthy lifestyle. In addition, we will explore physical activity as a way of life and how to develop a successful exercise program.

### **949 Strength Training and Conditioning (Grades 11, 12) (Not offered 2019-2020)**

Alternating day blocks per week – Full Semester – .50 Credit

This course will guide students to set realistic personal goals to improve their physical performance. Using established programs, such as “Bigger, Faster, Stronger,” students will participate in guided activities to improve strength, agility, speed, and overall fitness. This course is recommended for serious student athletes and anyone who plans to pursue a career in sports, health, or the military.

### **0935 Health and Wellness (Not offered 2019-2020)**

Every other day all year - 1 credit (.5 credit per semester)

Through group facilitation, this course will take an integrated approach to health, fitness, and wellness in which students will learn and practice a variety of self-regulatory strategies to promote physical, emotional, and social health and wellness. Students will participate in fitness activities and health information will be presented and discussed. Topics will be guided by the Massachusetts Health Curriculum Frameworks, and may include topics such as nutrition and weight management, stress reduction, dealing with conflicts, community health resources, and other topics of importance for healthy young adults.

## **ENGLISH LEARNER (EL) COURSE OFFERINGS**

### **194 Basic English**

5 blocks per week – Full Year – 2.00 Credit

This course focuses on developing essential English language skills to build communicative competence in beginning level students. It is an integrated skills class. Students will build vocabulary and learn simple verb tenses while practicing their listening, speaking, reading and writing skills. This course is designed to address WIDA, MA Curriculum Frameworks and Common Core Standards.

### **121 EL American Studies 1 A**

### **221 EL American Studies 1 B**

5 blocks per week – Full Year – 2.00 Credit (English 1.00 Credit/Social Studies 1.00 Credit)

**Prerequisite:** Teacher and Guidance recommendation and parent request

This course meets both English and American history requirements. Course content integrates American History and Literature from the **arrival of the first colonists through 1876** with a particular lens on language development. It is an integrated skills class where students will work to develop Listening, Reading, Speaking and Writing skills. It is designed to address WIDA, MA Curriculum Frameworks and Common Core Standards.

### **122 EL American Studies 2 A**

### **222 EL American Studies 2 B**

5 blocks per week – Full Year – 2.00 Credit (English 1.00 Credit/Social Studies 1.00 Credit)

**Prerequisite:** Teacher and Guidance recommendation and parent request

This course meets both English and American history requirements. Course content integrates American History and Literature from **1876 to the present** with a particular lens on language development. It is an integrated skills class where students will work to develop Listening, Reading, Speaking and Writing skills. It is designed to address WIDA, MA Curriculum Frameworks and Common Core Standards.

### **190 EL Writing 1 A**

### **191 EL Writing 1 B**

5 blocks per week – Full Year – 2.00 Credit (English 1.00 Credit/Social Studies 1.00 Credit)

**Prerequisite:** Teacher and Guidance recommendation and parent request

This course meets both English and history requirements. It is an integrated skills course with a focus on **the Research Writing process**. Students will choose topics of historical significance to research. The course will engage the student in the recursive process of source identification and validation for reliability and suitability, note taking and presenting research through writing and oral presentation. It is designed to address WIDA, MA Curriculum Frameworks and Common Core Standards.

### **192 EL Writing 2 A**

### **193 EL Writing 2 B**

5 blocks per week – Full Year – 2.00 Credit (English 1.00 Credit/Social Studies 1.00 Credit)

**Prerequisite:** Teacher and Guidance recommendation and parent request

This course meets both English and history requirements. It is an integrated skills course with a focus on recounting, explaining, arguing and discussing in writing with particular emphasis on **the essay, including the college essay, when relevant**. Students will focus on historical contexts and events for their writing. Students will also explore and use technological formats in which to present their writing. It is designed to address WIDA, MA Curriculum Frameworks and Common Core Standards.

### **MODIFIED SPECIAL EDUCATION COURSE OFFERINGS**

Under Chapter 766, Oakmont Regional offers a wide range of opportunities for students with special needs. Services are only open to students who have been evaluated by an assessment team and have a current, signed Individual Education Plan (IEP). The IEP Team will determine correct placement for each student according to his/her current I.E.P.

#### **106 Organizational Study Skills 1 (Grade 10)**

Five blocks per week-Full Semester-1.00 Credit

This course is designed for tenth grade students to promote the development of effective study skills. Specific skills taught include: organizational and time management strategies, information technology, literacy skills, critical thinking, social/communication, and collaboration skills, as well as skills to enhance the successful completion of assignments. Students will also explore their individual learning styles and ways that both self-efficacy and self-advocacy can enhance their learning to help them become responsible independent learners. This course will also prepare students for the English/Language Arts and Mathematics portions of the MCAS exam.

#### **101 to 104 Learning Center .5 Credit (Grades 9, 10, 11, 12)**

#### **100, 97, 95, 93 Learning Center 1 Credit (Grades 9, 10, 11, 12)**

This class provides academic support and remediation to students with unique learning needs. Specific services are dictated by the student's Individualized Education Program (IEP). Particular emphasis is placed upon study skills strategies and techniques, critical thinking, and communications skills needed for success in high school and beyond. Academic and social responsibility, decision-making, and citizenship are also emphasized.

#### **109 Academic & Social Skills Center (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

This Learning Center course is offered every school day for the enrolled student, with specific services based upon the student's Individualized Education Program (IEP). Specific skills that are focused on during this block include: organization, completing assignments, effective reading of textbooks and course material, test taking, following directions, time management, note taking and adhering to class guidelines and grading requirements. Students are also responsible for independently tracking homework, test and quiz dates and long term projects. Rules of conversation are reviewed, practiced, and applied in social settings within the naturally occurring environment of their school day. Additionally, there is a detailed focus on socialization and proper, positive interactions with peers, responsibility and how it relates to future planning, as well as self-reflection.

#### **110 Practical English (Grade 9)**

Five blocks per week-Full Semester-1.00 Credit

The Practical English class parallels the English 9 curriculum at a level commensurate with the abilities of the students. This course is designed to focus on the skills needed to increase each student's reading, writing, and critical thinking skills. Students will gain exposure to short stories, Greek mythology, Shakespearean drama, novels, grammar study and application, as well as research and information fluency in the writing of compositions and a research project.

### **111 Foundations of Reading (Grade 9)**

Five blocks per week-Full Semester-1.00 Credit

The Foundations of Reading class is designed to develop and reinforce fundamental and requisite skills needed for reading and writing at the high school level. Skill development is delivered through thematic unit work and deliberate mastery of specific skills. The primary skill focus is to develop and increase ability levels in encoding, decoding, reading comprehension, critical thinking, reading fluency, vocabulary development, and the organization and conventions of written language. In addition, understanding one's place in a community, collaboration, civic rights and responsibilities, and decision making will be explored and practiced. Students will be expected to take an active part in their learning and then generalize and apply learned skills to meet the academic demands of high school.

### **112 Practical Mathematics 1 (Grade 9)**

Five blocks per week-Full Semester-1.00 Credit

The Practical Mathematics 1 course is designed to help students review and reinforce previously learned mathematical operations and apply them to real life situations and scenarios. Learning will be accomplished through a process of using and integrating information founded on basic mathematical principles and exploring how it relates to daily living skills. Students will learn the importance of basic mathematics and how it correlates with responsibilities they will incur as young adults. Through this course, a basic skill or concept will be presented and then followed by practice activities and exercises. The essential math concepts will be presented in a clear and direct way, in small, manageable steps. Understanding of these concepts will be enhanced through discussion. Specific areas of instruction will include: basic operations using whole numbers, fractions and mixed numbers, decimals and percents, reading graphs/tables, introductory algebra, basic geometry and equations. Students successfully completing this course should have developed those necessary math competencies required for entry into another course offering within Oakmont's math curriculum.

### **113 Practical Mathematics 2 (Grades 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Note: This is an individualized course that is based on a student's I.E.P.

This course provides for active participation by the student in the learning process and more application of the concepts learned in the Practical Mathematics 1 course. It will give students the tools they need to understand mathematical principles and apply them competently to daily challenges. Students will review previously learned mathematical skills and be provided with opportunities to apply the skill in practical situations. They will learn strategies for solving both routine and non-routine problems relating to everyday real life issues, such as understanding the problem, using data, using graphs, choosing the correct computational operation and giving estimations. Students will enhance their critical thinking skills as they work on solutions to the problems.

### **114 Practical Mathematics 3 (Grades 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

Note: This is an individualized course that is based on a student's I.E.P.

The Mathematics for Consumers course is the third in a series of special education math courses. It focuses on utilizing basic math skills in everyday living situations. Students are provided with comprehensive instruction for developing those mathematical skills necessary for independent living. Students will develop academic and social responsibility as they study areas covered within this course, which include: Earning Money, Budgeting-Banking-Investing, Paying Taxes, Buying Food, Shopping, Buying and Maintaining a Car and Preparing for Careers.

### **115 Introduction to Algebra & Geometry (Grades 9, 10)**

Five blocks per week-Full Semester-1.00 Credit

This course introduces basic concepts in algebra and geometry, as it is essential for students to make connections between these two mathematical concepts. Topics to be taught include: exploring patterns, investigations in algebra, modeling integers, exploring the language of algebra, exploring data and graphs, exploring number theory, math vocabulary and strategies for success when solving word problems. These concepts will be compared with social/civic situations and how they apply to independent living, planning finances, and noticing changes in the economic world that surrounds the student. Emphasis for this course will be on critical thinking concepts in algebra and geometry and will include the use of concrete manipulatives to enhance and further their understanding.

### **90 Career Life Skills Excel (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

This course is designed for students with specific educational objectives, which correspond to each individual's educational program. Career readiness and daily living skills are the focus of this course. Units of instruction include appropriate workplace behavior/expectations, problem solving, career exploration, skills assessment, money management, and social/civic skills. Students will learn steps to gaining employment through the creation of work portfolios consisting of applications, cover letters, resumes, and letters of recommendation. A class business plan will also be developed to teach students how to start, run, and maintain a small business.

### **81 Life Skills English Excel (Grades 9,10,11,12)**

Alternating Days – Full Year – 1 Credit

This course is designed for students with specific educational objectives that correspond to each individual's educational program. Basic reading and comprehension skills as well as practical written and verbal communication skills are the focus of this course. Students will utilize standard written English to prepare for employment and daily living situations. Activities include filling out job related forms, organizing information, composing different forms of correspondence, reading and summarizing informational text, and utilizing instructional tools, such as maps and cooking recipes. All units of instruction include the acquisition of functional vocabulary words, such as safety signs and work-based terms.

### **82 Life Skills Math Excel (Grades 9,10,11,12)**

Alternating Days – Full Year – 1 Credit

This course is designed for students with specific educational objectives that correspond to each individual's educational program. This course emphasizes the use of practical mathematical applications to prepare students for employment and daily living situations. Units of instruction include basic number sense, money management, time telling, and the application of functional geometry and measurement. Activities will increase independence in calculator skills, estimation, shopping and budgeting, time management, and comprehension of every day word problems.

### **84 Life Skills Consumer Economics Excel (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

### **86 Life Skills Consumer Economics Excel (Grades 9, 10, 11, 12)**

Alternating Days – Full Semester - .5 Credit

This course is designed for students with specific educational objectives that correspond to each individual's educational program. This course offers students the skills they need to live as independently as possible as adults. Units of instruction focus on proper appearance and grooming, healthy and safe meal preparation, finding affordable housing, and clothing selection and care. Basic budgeting is also introduced as students are tasked with appropriate meal planning and developing grocery shopping lists. Other real-life expenses, such as

rent and utilities are also managed. Students will often travel into the community for hands-on experience with grocery shopping and further developing appropriate social interactions. This course may be taken multiple semesters as students gain mastery and refinement of skills.

### **85 Life Skills Computers Excel (Grades 9, 10, 11, 12)**

Five blocks per week-Full Semester-1.00 Credit

This course is designed for students with specific educational objectives that correspond to each individual's educational program. Instruction is designed to increase student's individual skills on the computer, while reinforcing the concepts they are being taught in their Math, English, and Life Skills classes. Students are also using computer programs for career exploration. Based on their ability, students will work on specific skills in these computer programs.

### **OASIS PROGRAM**

Oasis is an alternative special education program that creates a blended learning environment with small group instruction and social and therapeutic supports. The program is committed to providing a comprehensive and individualized experience that will promote the foundation for healing through ongoing therapeutic intervention, emotional and social development, and positive behavioral supports to facilitate the success in the school, home, and community. The following courses are for students enrolled in the Oasis program.

### **1000 English-Contemporary Literature**

Every other day all year - 1 credit (.5 credit per semester)

This course focuses on fiction and non-fiction pieces published within the past three decades. Students will analyze selected works and relate them to current topics in class discussion, writing, and creative activities. Students will gain an appreciation of current best-sellers and influential writings by modern authors.

### **1002 English-American Literature**

Every other day all year - 1 credit (.5 credit per semester)

This English class includes a chronological study of American Literature. Students will develop critical thinking, reading, research and writing skills. Literature-based writing activities range from persuasive and creative writing to literary analysis, using thesis statements and supportive textual evidence. Students will gather, interpret, synthesize and evaluate text and information through a variety of methods and technologies.

### **1003 English-Genre Study**

Every other day all year - 1 credit (.5 credit per semester)

This course is designed to develop an appreciation and understanding of literary genres and to explore literature as a mirror of human experience. The study of literature focuses on six units of study: the short story, the novel, drama, poetry, mythology, and non-fiction. This course is intended to provide a solid base of instruction in reading, writing, grammar, and vocabulary. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **1004 English-World Literature**

Every other day all year - 1 credit (.5 credit per semester)

This course focuses on critical thinking, reading, and writing skills as students explore important life themes in literature. Students use literature as models in writing and continue a study of grammar and vocabulary study to build strong skills. Students will present formal and informal speeches to improve communication and speaking skills. A variety of writing and speaking assignments will allow students to develop confidence as writers and

speakers. Students will enhance their reading, listening, and research skills while they gather, interpret, synthesize, and evaluate text and information through a variety of methods and technologies.

### **0112 Practical Math 1**

Five blocks per week- Full semester 1.00 credit

This course is designed to help students review and reinforce previously learned mathematics operations and apply them to real life situations and scenarios. Learning will be accomplished through a process of using and integrating information founded on basic mathematical principles and exploring how it relates to daily living skills. Students will learn the importance of basic mathematics and how it correlates with responsibilities they will incur as young adults. Through this course, a basic skill or concept will be presented and then followed by practice activities and exercises. Specific areas of instruction will include: basic operations using whole numbers, fractions and mixed numbers, decimals and percents, reading graphs/tables, introductory algebra, basic geometry and equations.

### **0115 Intro to Algebra & Geometry**

Five blocks per week- Full semester 1.00 credit

This course introduces basic concepts in algebra and geometry, as it is essential for students to make connections between these two mathematical concepts. Topics to be taught include: exploring patterns, investigations in algebra, modeling integers, exploring the language of algebra, exploring data and graphs, exploring number theory, math vocabulary and strategies for success when solving word problems. These concepts will be compared with social/civic situations and how they apply to independent living, planning finances, and noticing changes in the economic world that surrounds the student. Emphasis for this course will be on critical thinking concepts in algebra and geometry and will include the use of concrete manipulatives to enhance and further their understanding.

### **1005 Earth and Space Systems I**

Five blocks per week- Full semester 1.00 credit

Students will investigate Earth and space science; develop a deep appreciation of earth as a system and the impact on this system.

Through the use of science datasets, visualizations, animations, interactive and modeling activities, students study important science concepts from multiple perspectives and contexts. Students will engage in collaborative activities, hands on and virtual investigations. They will have a summative performance assessment project. Areas taught in this first semester course are: intro to earth systems, observing your local environment, the search for life in the solar system, the atmosphere, and the geosphere.

### **1006 Earth and Space Systems II**

Five blocks per week- Full semester 1.00 credit

Students will continue to investigate Earth and space science; develop a deep appreciation of earth as a system and the impact on this system. Through the use of science datasets, visualizations, animations, interactive and modeling activities, students study important science concepts from multiple perspectives and contexts. Students will engage in collaborative activities, hands on and virtual investigations. They will have a summative performance assessment project. Areas taught in this second semester course are: hydrosphere, history of the earth, biosphere, sustaining the way we live, and our changing planet.

### **1061 Epidemics**

Five blocks per week- Full semester 1.00 credit

This course is designed to enable students to understand why new diseases are appearing and why those we thought conquered are reappearing. This is done in the context of basic concepts upon which our understanding of biology is built; the interdependence of life and the interconnectedness of our world. Epidemic diseases will be analyzed using a holistic approach to controlling and eradicating disease called One Health. This framework will help us see how our past and present actions will affect the future course of disease. Students will tackle dilemmas such as the vaccination debate, antibiotic resistance, the human-animal interface, food distribution, and travel quarantines. We'll also discuss breakthroughs in technology including how smartphones and social media are revolutionizing disease surveillance.

### **1062 Evolution and the Nature of Science**

Five blocks per week- Full semester 1.00 credit

This course will take students back in time, forward in time and to the far corners of the scientific realm. In this course you will explore the concept of Evolution - the core theme of all biology and you will investigate the impact that science has on our lives and on our thinking. Most importantly, you will venture into the very "Nature of the Scientific Process!" Biological evolution accounts for three of the most fundamental features of the world around us: the similarities among living things, the diversity of life, and many features of the physical world we inhabit. Explanations of these phenomena in terms of evolution draw on results from physics, chemistry, geology, many areas of biology, and other sciences. Thus, evolution is the central organizing principle that biologists use to understand the world. Much of the work you do will take you exploring on the World Wide Web, but you will also investigate the processes of evolution in "your own backyard" and look at the Nature of Science all around you. Evolution and the Nature Of Science provides an extremely active and rich source of new insights into the world.

### **1001 United States History 2**

Five blocks per week- Full semester 1.00 credit

This course surveys the ideas, events and persons that have shaped the history of the US from 1877 to 2000. Students will analyze primary source documents, use historical thinking skills, produce essays, and presentations.

### **1007 United States Since September 11, 2001**

Five blocks per week- Full semester 1.00 credit

This class investigates the events surrounding the terrorist attacks of September 11, 2001, as well as the attacks themselves. We will also examine the major economic and political events inside the United States since 9-11. Students will analyze primary source documents, using historical thinking skills, produce essays, and presentations.

### **0935 Health and Wellness**

Every other day all year - 1 credit (.5 credit per semester)

Through group facilitation, this course will take an integrated approach to health, fitness, and wellness in which students will learn and practice a variety of self-regulatory strategies to promote physical, emotional, and social health and wellness. Students will participate in fitness activities and health information will be presented and discussed. Topics will be guided by the Massachusetts Health Curriculum Frameworks, and may include topics such as nutrition and weight management, stress reduction, dealing with conflicts, community health resources, and other topics of importance for healthy young adults.

## **SPECIALIZED COURSE OFFERINGS**

**982 Teacher Aide (Grade 10,11,12)**

62 hours; green or white day program in one block – Pass/Fail (**Grade Not for Credit**)

**Prerequisite:** Parent, Teacher, Guidance Counselor, and Administration approval required

This program is intended as an in-school volunteer service opportunity on alternate days during one semester only. It is the responsibility of the teacher aide to provide clerical support to the supervising teacher. Whereas a variety of tasks may be required, no teacher aide is allowed to correct student work, nor is the teacher aide allowed to provide data entry services on the teacher's computer. The program is undertaken on a Pass/Fail basis and will not count toward graduation requirements. The notation: "In School Service; 62 hours complete" will appear in the "activities" section of the front, right side of the student's transcript.

**983 Teaching Assistant** (Grade 11,12)

124 hours; every day in one block – Pass/Fail (**Grade Not for Credit**)

**Prerequisite:** Parent, Teacher, Guidance Counselor, and Administration approval required

The more rigorous of these two in school volunteer options, a teaching assistant will have demonstrated a strong background in the chosen subject area. He/she will be held to a high standard of teacher-like responsibilities. Teaching assistants will be expected to research and develop new curricula, teach to the class, and provide small group tutoring sessions, all under the direct supervision of the sponsoring teacher. Set up and delivery of labs, for example, may also be required. Teaching assistants will consult with their supervising teachers on a weekly basis as this is a full block (every day) option. Successful completion of this program will not count in GPA or class rank as it will not earn credit toward graduation. Instead, the notation "In School Service – 124 hours completed" will appear in the "activities" section on the front right side of the student's transcript.

**988/989 Independent Study** (Grades 11, 12)

Five blocks per week-Full semester-1.00 Credit

Alternate Days-Full semester-0.50 Credit

**Prerequisite:** Application process, recommendation of Guidance and approval by the Principal. **Minimum GPA of 2.8 required**

Junior and Senior students with a need to extend their curriculum investigation in topics not covered in the Oakmont curriculum may select a special research project or course of study. Students will be required to develop a curriculum with a qualified teacher or mentor who will monitor and evaluate the project or course of study. The project must entail a minimum of 124 hours of documented time. The curriculum must be approved by Guidance and the Principal and must be successfully completed as indicated and graded by the teacher or mentor. The student will be required to present the completed project to a committee of administration and faculty. Upon successful presentation to the committee and teacher/mentor approval 1.00 credit will be granted.

## **GREEN DAY / WHITE DAY .5 CREDIT COURSES**

Courses below are options that are chosen in the scheduling process, if your schedule needs a paring option to go with a .5 graduation requirement. Whether a student needs a .5 Green/White Day option is unknown until the master schedule matrix has been completed. Please select and rank these options on the bottom of your course selection sheet, in case the need arises in your schedule for a Green or White Day class. These courses are not to be chosen as part of your main courses.

**993 Global Skills Seminar** (Grades 9 – 12)

Full Semester – Alternating Days and - .5 Credit

Global Skills Seminar is designed to provide whole class and small group instruction to increase proficiency in reading, language, writing, and public speaking. Students will also learn organizational and study skills, including time management, stress management, goal setting, and test preparation, to help them achieve personal and academic success.

### **995 ELA SAT Preparation (Reading and Writing) (Grades 10, 11)**

Full Semester – Alternating Days - .5 Credit

This course is geared to help students learn great tools to prepare for the Reading and Writing portion of the *SAT*. The course includes strategies and test-taking tips as well as practice in taking the various sections.

Students will take sample SAT tests and review them together. Students will also get tips and strategies for the SAT subject tests and the ACT.

### **996 MATH SAT Preparation (Grade 11)**

Full Semester – Alternating Days - .5 Credit

Course Sequence: Completion of Algebra 2 or teacher recommendation. This course will help prepare students for the new SAT by reviewing and making connections between algebra and geometry. Students will also study the structure of the SAT while reviewing and becoming familiar with the type of content covered on the SAT.

Test taking strategies will also be covered. Students' scores on standardized tests will be enhanced through understanding of test format and strategies. Students will identify weaknesses within their mathematics skills and seek to improve upon those weaknesses. Students will continue to study various topics listed within the conceptual categories including algebra, functions, modeling, geometry and probability and statistics while persevering in solving problems.

### **747 Art History (Grades 10 -12)**

Full Semester – Alternating Days - .5 Credit

Course Sequence: None

From the dawn of time, Art History takes students on a journey that introduces a unique learning approach for those who appreciate and like looking at art, but may shy away from a traditional art-making course. The combination of Internet and classroom experience presents students with both Western and non-Western art forms in painting, sculpture and architecture. Students discover how the visual arts serve to shape and reflect ideas, issues, and themes recorded throughout time. Additionally, students are given some hands-on activities and mini art projects throughout the course to connect historical and artistic content.

### **846 Animation (Grades 10,11, 12) (Not offered 2019-2020)**

Alternate Days - Full Semester - .5 Credit

Course Sequence: None

Making images come to life. This beginning animation course exposes students to a range of traditional and digital media used to create moving images. Students will learn and explore basic theory, application techniques, and mechanics of animation along with principles of character design, layout and storyboarding. This course will introduce historical and contemporary animation styles as inspiration for projects like traditional, stop-motion, 2D or 3D computer animation and motion graphics. No prior animation experience is required; just your vision for making things move.

### **564 Visceral Human Anatomy and Physiology-GUTS (Grades 11, 12)**

Alternating days (Green/White)- Full Semester- 0.5 Credit

Course Sequence: Completion of Freshman Health, Biology and Chemistry

Visceral Human Anatomy and Physiology is an exciting and challenging in depth course that will explore the cardiovascular, respiratory, digestive and urinary systems. It is recommended for students interested in pursuing careers in healthcare or related fields. There is a mandatory laboratory component which consists of exploring body systems using computer technology as well as probeware and dissection. Successful students in Anatomy & Physiology have completed freshman health, biology and chemistry. They also have strong time management skills and are able to work independently.

## DUAL ENROLLMENT WITH OTHER EDUCATIONAL INSTITUTIONS

### **998/999 Dual Enrollment Program (Grades 11, 12)**

Full semester-1.00 Credit for each 3 credit College course passed

**Dual Enrollment** programs are educational programs which afford high school juniors and seniors who meet Oakmont Regional High School qualifications the opportunity to enroll in college-level courses.

The following Dual Enrollment Policy is approved for juniors and seniors at Oakmont Regional High School.

In order for a **Junior** to be eligible to participate in the program he/she must meet the following criteria:

1. Have earned a cumulative **G.P.A. of 3.2** at the end of 3 semesters for fall enrollment and 4 semesters for spring enrollment. (To continue a 3.0 must be maintained in the college courses )
2. Pass MCAS Exams in ELA, Math and Science/Technology prior to enrollment
3. Be enrolled in the Oakmont grade 11 curriculum in United States History, English, fitness & one other full-credit elective at Oakmont. (Thus, juniors are only eligible for part-time study at a college, and must carry a total of 4 courses each semester.)
4. Receive approval from the participating college for admission to their program. No funding is provided by the Ashburnham-Westminster Regional School District.

In order for a **Senior** to be eligible to participate, either full-time or part-time, in the program, he/she must meet the following criteria:

1. Have earned a cumulative **G.P.A. of 3.0**. The 3.0 G.P.A. must be maintained to remain eligible for the program.
  2. Pass MCAS Exams in ELA, Math and Science/Technology prior to enrollment.
  3. Be enrolled in English 12 at Oakmont unless enrolled as a full-time Dual Enrollment student, in which case an English course must be taken at the college.
  4. Enroll in courses equivalent in number to those carried by all Oakmont seniors (4 each semester), a minimum of eight courses (4 each semester) or 24 college credits over a one year period.
  5. Enroll in all courses necessary to fulfill all graduation requirements at Oakmont.
- Full participation in Oakmont athletics and activities will be permitted provided that the student can meet the requirements for that activity and any additional M.I.A.A. requirements.
  - The student or parent must provide a transcript of college grades to the high school guidance office no later than five days prior to the close of the current high school semester. (NOTE: Students who fail to file transcripts by the deadline may not be included in Honor Roll, Academic Honors, and/or graduation ceremonies and will not be eligible for future dual enrollment.)
  - A total not to exceed 4 courses each semester will be included in the Oakmont G.P.A. and class rank.
  - A total not to exceed 4 courses each semester will be included in honor roll at Oakmont.

The student and his or her parents or guardians must agree to the following conditions for participation in Dual Enrollment with participating colleges and universities:

- a) Student schedules must be approved by his or her Guidance Counselor prior to the start of classes. Schedule changes are not allowed unless approved by the counselor. Any exceptions, due to an extenuating circumstance, must be approved by Guidance and Administration. College course

enrollments that are not approved by Guidance Counselors may not be awarded Oakmont graduation credit.

- b) The student has met the guidelines of the Oakmont Dual Enrollment Program and a college has accepted the Oakmont student into its' Dual Enrollment Program.
  - c) Tuition and fees shall be paid by the student/parent.
  - d) Oakmont seniors must successfully complete their college courses before the date that the Senior Class is to graduate. Juniors must complete their college courses by the end of Oakmont's fourth academic term. Students are required to carry a minimum of 4 three credit classes each semester and will not be allowed to drop a course unless it is replaced - during that same semester - by a course of at least equal credit value.
  - e) The student must earn an equivalent number of total credits to meet Oakmont graduation requirements. Seniors must take and pass a full semester of English and remain enrolled in the equivalent of 8 "full credit" courses.
  - f) No student will be granted a diploma who has not met the minimum requirements set forth in the graduation requirements policy as outlined in the Oakmont Student Handbook.
  - g) It is the responsibility of the student and/or parent to have official transcripts of his/her college work sent to the Oakmont Guidance Department no later than five days prior to the end of each Oakmont semester and ten days prior to Oakmont's graduation ceremony in June for seniors seeking a diploma. Failure to comply with these timelines may result in course failure, ineligibility to participate in graduation ceremonies for seniors, or denial of permission for further participation in Dual Enrollment for juniors.
2. Students are encouraged to participate in all Oakmont junior or senior class activities throughout the year. It is the student's responsibility to remain informed of class activities and deadlines. Seniors are responsible for keeping themselves updated regarding deadlines and requirements for graduation.
  3. Should an Oakmont senior not be able to successfully complete the program, the student will have to make up needed credits before an Oakmont diploma is granted.
  4. A student who enrolls in college with at least a 3.2 GPA from Oakmont for grades 9, 10, and 11, will be eligible to receive an honor stole at graduation if he/she maintains that average (3.2) in college.
  5. **All college courses are given college preparatory weight when calculated into the student's class rank.**

## FOUR YEAR COURSE PLANNING FORM

List the courses that you plan to take for the next school year under the appropriate Grade (9, 10, 11, and 12). Then list the courses you plan to take in each grade for your remaining years in high school.

STUDENT \_\_\_\_\_ CURRENT GRADE \_\_\_\_\_

CAREER PATH IS \_\_\_\_\_ 4 YR COLLEGE  
 \_\_\_\_\_ 2 YR COLLEGE/TECHNICAL SCHOOL  
 \_\_\_\_\_ CAREER/EMPLOYMENT  
 \_\_\_\_\_ MILITARY

GRADE 9			GRADE 10		
Course #	Course Title	Credit	Course #	Course Title	Credit
	English 9	1.0		English 10	1.0
	Ancient History	1.0		History elective	1.0
	Biology	1.0		Math	1.0
	Math	1.0		Science	1.0
	Fitness / Health 9	0.5 0.5		Fitness / Business Applications and Career Exploration 10	0.5 0.5
GRADE 11			GRADE 12		
Course #	Course Title	Credit	Course #	Course Title	Credit
	English 11	1.0		English 12	1.0
	U.S. & World: 20th Century	1.0			
	Math	1.0			
	Science	1.0			
	Fitness	0.5		Fitness or Senior Waiver	0.5

**Student Name:** \_\_\_\_\_ **Course Selection Worksheet 2019-2020**

	ENGLISH/LANGUAGE ARTS		MATHEMATICS		VISUAL ARTS
131	English 9 (H)	413	Algebra 1 Part 1	721	3-D Design / Sculpture (1cr)
133	English 9	414	Algebra 1 Part 2	731	Graphic Design & Digital Art 1
141	English 10 (H)	416	Algebra 1 (H)	732	Graphic Design & Digital Art 2
143	English 10	419	Algebra & Geometry Preview	733	Graphic Design & Digital Art 3 (H)
150/151	AP English 11 (Lang & Comp) Pt1&Pt2	426	Geometry (H)	741/740	Art 1 / Art 1 (.5cr)
152	English 11 (H)	427	Geometry	742	Art 2
153	English 11	429	Math Modeling	743	Art 3 (H)
154	American Studies English (H)	431	Algebra 2 (H), part 1	744	Art 4 (H)
160/161	AP English 12 (Lit. & Comp.) Pt1&Pt2	432	Algebra 2 (H), part 2	745	Art 5 (H)
162	English 12 (H)	433	Algebra 2, part 1	751	AP Art and Design
163	English/Contemporary Literature	437	Algebra 2 part 2		<b>PERFORMING ARTS/MUSIC</b>
164	English/Film & Literature	440	Algebra 2 Essentials, part 1	761/2	Concert Band 1 (S1/S2)
188	Speech & Personal Communication	441	Algebra 2 Essentials, part 2	763/4	Concert Band 2 (S1/S2)
165	English/Sports Literature	447	Pre-calculus (H)	765/6	Concert Band 3 (H) (S1/S2)
182	Book Smart (1cr)	458	Probability & Statistics	767/8	Concert Band 4 (H) (S1/S2)
184	Journalism (1cr)	466	Calculus (H)	781	Music Appreciation
186	Creative Writing (1cr)	470/471	AP Calculus AB (Pt1 & Pt2)	782	Rock & Roll - Blues to the Beatles (S1)
	<b>SOCIAL STUDIES</b>		<b>SCIENCE</b>	783	Rock & Roll – British Invasion to Today (S2)
280	Foundations: Ancient to 1763	531	Biology (H)	788	Music Theory 1
281	Foundations: Ancient to 1763 (H)	533	Biology	769	Music Theory 2
240	AP World History (Not offered)	536	Geology & Oceanography	790	AP Music Theory (Independent Study)
282	US & World:EarlyModern1763-1900	537	Meteorology & Astronomy	771/2	Concert Choir 1 (S1/S2)
283	US & World:EarlyModern1763-1900(H)	541	Chemistry (H)	773/4	Concert Choir 2 (S1/S2)
250	AP US History (S2)	543	Chemistry	775/6	Concert Choir 3 (H) (S1/S2)
284	US & World: 20th Century	545	Chemistry in the Community	777/8	Concert Choir 4 (H) (S1/S2)
285	US & World: 20th Century (H)	546	Field Botany		<b>TECHNOLOGY ENGINEERING</b>
286	US & World: Globalism & Terror	547	Forensic Science	821	Wood Technology
287	US & World: Globalism & Terror (H)	551	Physics (H)	822	Materials and Construction
257	Sociology	554	Human Anatomy & Physiology	831	Communications Technology
258	Psychology	557	Wildlife Management	833	Television Production
263	Government/History & Economics	553	Environ Studies: Ecology/Problems	841	Design Technology
267	Women in World History	559	Environmental Science (H)	842	Engineering Design
268	Women in World History (H)	562	Advanced Chemistry & Physics (H)	843	Architectural and Interior Design
		570	AP Chemistry (S2)	844	Advanced Engineering and Robotics (H)
	<b>FOREIGN LANGUAGES</b>	988	Independent Study GIS	851	Power, Energy & Fabrication Technology
331	French 1		<b>BUSINESS APPLICATIONS</b>	852	Power, Energy & Transportation Tech
332	French 2	639	Business Apps and Career Exploration	849	Video Game Design (H)
333	French 3 (H)	642	Personal Finance	552	Applied Physics/Principles of Tech
334	French 4 (H)	644	Accounting		<b>HEALTH &amp; FITNESS</b>
351	Spanish 1	686	Career Internship	901	Fitness Education
352	Spanish 2		<b>ENGLISH LEARNER (EL)</b>	915	Health & Human Behavior (.5 Cr)
353	Spanish 3 (H)	194	Basic English	945	Women's Fitness (.5 Cr)
354	Spanish 4 (H)	121	EL American Studies 1 A	946	Men's Fitness (.5 Cr)
355	Spanish 5 (H)	221	EL American Studies 1 B	947	Lifetime Fitness (.5 Cr)
360	AP Spanish	122	EL American Studies 2 A	936	Nutrition & Wellness for Life (1 Cr)
	<b>MODIFIED (Counselor Use Only)</b>	222	EL American Studies 2 B	949	Strength Training & Conditioning
137/138	English 9Pt1/English Pt2 (1cr each)	190	EL Writing 1 A		<b>SPECIAL PROGRAMS</b>
534	Biology Essentials	191	EL Writing 1 B	982	Teacher Aide (62 hours)
110	Practical English	192	EL Writing 2 A	983	Teaching Assistant (124 hours)
111	Foundations of Reading	193	EL Writing 2 B	988/989	Independent Study (1cr/.5cr)
142	Basic Business Apps & Career Exp (.5cr)		<b>.5 Green/White Day Class Alternates</b>	998/999	Dual Enrollment (Gr.11/Gr.12)
112	Practical Math 1	995	ELA SAT Prep (.5cr)		<b>MODIFIED (For Counselor Use Only)</b>
113	Practical Math 2	996	Math SAT Prep (.5cr)	90	Career Life Skills Excel
114	Practical Math 3	993/994	Global Skills Seminar (.5cr/1cr)	81	Life Skills English Excel
115	Intro Algebra & Geometry	846	Animation (.5cr)	82	Life Skills Math Excel
100/101	Learning Center gr. 9 (1cr/.5cr)	564	Guts: Visceral Human Anat.& Phys. (.5cr)	84	Life Skills Consumer Economics Excel
97/102	Learning Center gr. 10 (1cr/.5cr)	183	Book Smart (.5cr)	85/86	Life Skills Computers Excel (1cr/.5cr)
95/103	Learning Center gr.11 (1cr/.5cr)	185	Journalism (.5cr)		
93/104	Learning Center gr. 12 (1cr/.5cr)	722	3-D Design / Sculpture (.5cr)		
106/107	Organizational Study Skills 1 / 2	747	Art History (.5cr)		
109	Academic & Social Skills Center				



# OAKMONT REGIONAL HIGH SCHOOL COURSE PLANNING 2019-2020

*\*Worksheet for home use only– Sophomores, Juniors, Seniors Complete Selection Online*

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

Class of \_\_\_\_\_

Career Path \_\_\_\_\_

Homeroom: \_\_\_\_\_

List the eight blocks of courses that you plan to take for the next school year. Be sure that you are meeting minimum credit requirements. Please begin by listing/prioritizing courses (required courses are your top priority). Please list any sequenced course, by department, to the right of the first course. (i.e. Algebra 1 is your first choice, Geometry is considered a sequenced course. Be sure that you list it in the column to the right of your first choice.)

Department		FIRST CHOICE		Department Sequenced Courses		USE THIS COLUMN FOR SEQUENCED COURSES ONLY – SEMESTER 2	
	Crs #	Course Title	Cr		Crs #	Course Title	Cr
English				English			
Math				Math			
Soc. Studies				Soc. Studies			
Science				Science			

**Alternative Courses:** \*Students will NOT enter these courses online.

**If we are unable to schedule your first choice electives, what other courses would you choose?** (List in order of importance)

- |          |          |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |

**Green / White Day .5 Credit Course Alternates Rank in order of preference 1-10; 1 being top choice.**

(Courses below will only be scheduled, if needed; not to be selected for core classes) \*Students will NOT enter these courses online.

Rank	Course	Rank	Course	Rank	Course
	ELA SAT Prep (.5cr)		Creative Writing (.5cr)		Guts: Visceral Human Anat.& Phys. (.5cr)
	Global Skills Sem (.5cr/1cr)		Book Smart (.5cr)		3-D Design / Sculpture (.5cr)
	Math SAT Prep (.5cr)		Journalism (.5cr)		Art History (.5cr)

In courses where there is more than one level, students will be assigned based upon teacher and/or counselor recommendations. In order to have a level changed, the parent/guardian(s) must arrange a conference with either the recommending teacher or the guidance counselor prior to the close of school in June. Students and their parent/guardian(s) should give considerable thought to course selections and should make a commitment to that course selection decision. Counselors will meet with students to review course selections and make the necessary schedule adjustments. Once students are registered for courses and the master schedule has been completed in June, **STUDENT INITIATED COURSE CHANGES WILL NOT BE APPROVED** without a parent/guardian contact. We have reviewed and approved the course selections of my son/daughter for the 2019-2020 school year.

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

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

*Parent/guardian(s) who have questions or concerns are encouraged to contact at 978-827-5907.*

Mr. Pilger x2159 (last names A-F)      Ms. Ewell x2164 (last names G-O)      Ms. Dubovick x2163 (last names P-Z)