

Thomas Jefferson High School



2020 – 2021

Program of Studies

Course Selections for Grades 9 – 12

Thomas Jefferson HS

830 Old Clairton Road

Jefferson Hills, PA 15025

2020 – 2021 Thomas Jefferson High School Program of Studies

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Skyward and Pa. State Reporting Specialist

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The information contained in this handbook is intended to provide a guide to students, parents and staff. The handbook should be read in conjunction with the adopted policies of the School District. The policies of the School District will prevail in the event of any conflict between those policies and provisions of the handbook. Any such conflicts are inadvertent.

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Accreditation

Pennsylvania Department of Education

It is the policy of the West Jefferson Hills School District not to discriminate on the basis of sex, handicap, age, race, color, and national origin in its educational and vocational programs, activities, or employment as required by Title IX, Section 504 and Title VI.

For information about your rights or grievance procedures, contact the Title IX Coordinator/Section 504 Coordinator, at this telephone number:

(412) 655-8450 or at this address:

West Jefferson Hills School District
830 Old Clairton Road
Jefferson Hills, Pennsylvania 15025
www.wjhds.net

Foreword

This handbook is issued to help acquaint students with the course offerings and to enable them to plan wisely the remainder of their high school careers. It is intended to provide students and parents with information about school practices and policies; to assist students in making choices consistent with the students' aptitudes and interest; to enable students to utilize their abilities; and to encourage them to make the best decisions relative to their post-high school plans.

Students and their parents are strongly urged to consult the counselors or other school officials for assistance in interpreting the available information as to aptitudes, interest and limitations; for educational and vocational information; and for help in planning subject selections. We endeavor to regard students as individuals in their own right, entitled to help and guidance in understanding themselves. Group and individual conferences will be held with all students. The Program of Studies is intended to meet the needs of each student, and should be read in terms of future educational goals. Parents should feel free to call the school at (412) 655-8610 for any questions that may arise.

This book is updated annually. Parents and students are encouraged to check on line each school year for the updated versions at the Thomas Jefferson High School link at www.wjhds.net.

Mission Statement

Students are the primary focus of the West Jefferson Hills School District where, in partnership with families and community, the mission is to educate and prepare all students to become active, contributing members of society by providing a challenging, innovative, and educational program guided by an exceptional staff in a safe, positive, caring environment, all of which promote excellence.

Vision Statement

In the West Jefferson Hills School District, we advocate for our students by providing instruction that enables them to achieve high academic standards, and by developing relationships with them, their families, and each other that create caring, safe schools where students are valued.

- Our students all achieve high academic standards.
- Our student achievement of high standards includes curricular, artistic, vocational, athletic, and extra-curricular goals.
- We coordinate curriculum across and between grade levels, programs, and buildings.
- Our students are active learners.
- We recognize documented teacher observation over time as an effective form of student assessment.
- Our staff members are highly qualified and maintain their excellence through continued professional growth.
- We partner with higher education.
- Our district's staff members relate to students, their families, and each other in ways that convey compassion, understanding, respect, and interest.
- We honor the traditions of our past: academic, athletic, and extra-curricular.
- Our facilities are of a quality and nature that support and encourage district programs and goals.
- Our community understands and supports our district's programs and goals.
- We accept our role in the economic growth and well-being of our community.

Belief Statements

We Believe:

- The learning and the educational development of individuals are collaborative efforts involving student, family, school and community.
- High expectations promote high achievement.
- Individuals are responsible for their actions.
- The family is a primary influence and motivator for the student.
- Students are the primary focus of the school system.
- Everyone learns at different rates and in different ways.
- All students have an equal opportunity for an education in which they are encouraged to develop their potential.
- Effective learning takes place in a safe, positive and caring environment where respect for others is demonstrated.
- Education involves an interdisciplinary process.
- Learning involves acquiring basic academic knowledge, skills and the ability to analyze, interpret, apply, synthesize and evaluate.
- Education provides skills to enable all students to participate in a lifelong process of learning in a changing world.
- Quality education includes activities inside and outside of the classroom.
- An effective educational program requires giving an exceptional staff a voice in the educational process and providing them with consistent and planned professional development opportunities.
- Advancements in technologies impact knowledge and education.
- Quality public education is essential for a thriving community and requires shared fiscal responsibility.
- Effective communication among school, family, students and community is vital throughout the educational process.

West Jefferson Hills School District Core Values

Personal Core Values

Empathy – Our commitment is to listen deeply before jumping to conclusions. We will work to understand first.

We will seek first to understand before being understood...

Respect – Our commitment is to earn the respect of others by building trust, honoring differences, and celebrating diversity. We are in this together!

We will expect the best of others by treating them the way we would want to be treated...

Integrity – Our commitment is model high moral behavior by being honest, fair, and forthcoming with ALL our interactions.

We will do the right thing AND we will do things right...

District Core Values

Personalization/Customization System – We believe that the future of education will be characterized by a customized and highly personalized system where the instructional methodologies are optimized for the needs of each learner.

Every learner, every day

Learner Centric Focus – Decisions about people, policies, practices, and structures are decided by focusing on what is best for the learners.

Keeping Learners First

Fostering Positive Relationships – We know positive relationships have the power to unleash untapped potential in people.

Honoring and Affirming Others

Academic Standards and Objectives

Instruction in the high school program shall focus on the development of abilities needed to succeed in work and advanced education through planned instruction. Curriculum and instruction in the high school program shall provide all students opportunities to develop the skills of analysis, synthesis, evaluation and problem-solving, as well as information literacy. Planned instruction in the following areas shall be provided to every student in the high school program. Planned instruction may be provided as a separate course or as an instructional unit within a course or other interdisciplinary instructional activity.

1. Students will study language arts, integrating reading, writing, listening, speaking, literature and grammar.
2. Students will study mathematics, including algebra, geometry, probability and statistics, logical reasoning, and discrete math.
3. Students will study science and technology, including participation in hands-on experiments and at least one laboratory science chosen from life sciences, chemical sciences, and physical sciences.
4. Students will study social studies to include civics and government, economics, geography and history, the history and cultures of the United States, the Commonwealth and the world.
5. Students will study the arts, including art, music, theater and humanities.
6. Students will study the use of applications of microcomputers and software, including word processing, database, spreadsheets and telecommunications; and information skills, including access to traditional and electronic information sources, computer use and research.
7. Students will study health, safety and physical education, including instruction in concepts and skills which affect personal, family and community health and safety, nutrition, physical fitness, movement concepts, motor skill development, safety in physical activity settings, and the prevention of alcohol, chemical and tobacco abuse.
8. Students will study family and consumer science, including principles of consumer behavior and basic knowledge of child health and childcare skills.

The following planned instruction shall be made available to every student in the high school program:

1. Vocational-technical education
2. Career education and work
3. World languages
4. Technology education, incorporating technological problem-solving and the impacts of technology on individuals and society
5. College-level advanced placement courses

Supportive Programs

Special Education Services

Special Education services are provided to all students in accordance with the Individuals with Disabilities Education Act (IDEA) and PA Chapter 14 Programs and Services. A student with a disability means a student who, as the result of a multidisciplinary evaluation is determined to meet the criteria in one of more of the following 13 categories: intellectual disability, hearing, deafness, speech or language impairment, a visual impairment including blindness, emotional disturbance, orthopedic impairment, autism, traumatic brain injury, other health impairment, specific learning disability, deaf-blindness or multiple disabilities and who is determined to be in need of special education and related services. Special education services are provided based on the primary educational needs of the student, not the category of the disability. Related services are designed to enable the student to access or participate in educational programs. Related services may include speech and language therapy, physical therapy, occupational therapy audiology, orientation & mobility, assistive technology, psychological counseling, social work, nursing services and parent training. The services provided at Thomas Jefferson Senior High School include:

- **Emotional Support-** These services are designed to meet the needs of students who need assistance with emotional, behavioral and social needs that have an adverse impact on their learning.
- **Hearing Support-** Students with a hearing impairment, including deafness are provided with appropriate services and support to enable them to access and fully participate in the curriculum.
- **Learning Support-** Services provided to students who have an identified need in understanding or in using language (spoken or written), reading, writing or mathematics. Accommodations and modifications may be provided to the general curriculum or through more intensive interventions may be necessary to meet the needs of individual students.
- **Life Skills Support-** Life Skills Support is designed to provide a continuum of services for students with intellectual disabilities and students whose social/behavioral skills are significantly delayed. These students require instruction in daily living skills in addition to receiving instruction in ELA, Mathematics, Science and Writing utilizing the Alternate Eligible Content that is aligned to the PA Core Standards. A primary goal of the Life Skills Support program is to grow a student's social/emotional development, communication, functional and vocational skills and provide Community Based Instruction (CBI) in order to increase the level of independent functioning.

- **Speech and Language Support**-Services are provided to students who demonstrate a need in the areas of articulation, language, auditory processing and fluency. The service is provided through various models including, push-in, and pull-out individual and small group.
- **Vision Support**-Students with a visual impairment, including blindness are provided with appropriate services and supports to enable them to access and fully participate in the curriculum.

Gifted Support

The goals and focus of gifted support services at Thomas Jefferson High School are to support intellectually gifted students throughout their high school enrollment and to provide college and career planning assistance. The program also addresses both the general and specific needs of each student through activities such as Honors and Advanced Placement courses, seminars, competitions, summer workshops, and shadowing/apprenticeship opportunities. Students are kept apprised of information and opportunities via TJTV, PA announcements, the Gifted Google Classroom, and Students are encouraged to sign up for all events which meet their strengths, abilities and interests as determined by their individual GIEP.

Life Skills

The Life Skills Support program is designed to provide a continuum of services for students with intellectual disabilities and students whose social/behavioral skills are significantly delayed. These students require instruction in daily living skills in addition to receiving instruction in English, Mathematics, Science and Writing utilizing the Alternate Eligible Content that is aligned to the PA Core Standards. A primary goal of the Life Skills Support program is to grow a student's social/emotional development, communication, functional and vocational skills and provide Community Based Instruction (CBI) in order to increase the level of independent functioning.

Students will continue to work on the acquisition of new academic skills and focus on the following five domains of daily living skills:

- Personal Maintenance-personal hygiene and grooming
- Social/Behavioral Skills-understanding emotions, social interaction and responsible behavior
- Recreation & Leisure-exploring interests, hobbies, physical fitness, participation in sports/clubs
- Functional academics-skill development in math, English-language Arts, Science & Writing
- Vocational skills-career exploration, work behaviors/skills, interests and work expectations

The sequences of skills are developed and practiced across settings and are based on the individual needs of each student.

Counseling Services

School Counselors

The School Counselors are here to assist you in your endeavors throughout high school. The functions of the counselors will be unique to each student's needs. However, the primary goal of counseling at Thomas Jefferson will be to meet the developmental needs of students in the educational system for the realization of their maximum potential. Parents are encouraged to make appointments when necessary to speak with the counselor.

The functions of the counselors are varied. The following identify some of the services/activities that are rendered:

1. Provide individual counseling to students
2. Consult with school staff regarding students
3. Implement a system of student records
4. Establish orientation activities
5. Organize informational resources to provide a basis for students to make educational/vocational decisions
6. Administer and interpret the testing program
7. Serve as liaison with community agencies
8. Provide assistance for educational and vocational placement and planning
9. Serve as a liaison to teachers for students and parents
10. Disseminate information pertinent to student's career planning (i.e., open house programs, scholarships, etc.)

Social Worker

The West Jefferson Hills School District has a Licensed Social Worker as a part of the Thomas Jefferson High School Faculty. The primary role of the Social Worker includes individual and group supportive counseling with students. In the office of the Social Worker, students are able to discuss emotional, social and academic concerns in a safe and confidential environment. These services may also include, but are not limited to, anger management, grief counseling, crisis intervention, and conflict resolution.

All students at Thomas Jefferson High School have the opportunity to meet with the Social Worker as necessary. Referrals to the Social Worker can be made by teachers, administration, parents, or through the Student Assistance Team. Students are also able

to self-refer or refer a friend if they are in need of support. Once referred, the Social Worker will determine the level of need for each individual student. Not all students will receive services on an ongoing basis. These services are not clinical in nature and cannot take the place of an outpatient mental health clinician. If further support is needed, the Social Worker will act as a liaison by assisting in the facilitation of referrals between families and community resources.

The Social Worker position is classified as a "Mandated Reporter"; therefore, all appropriate procedures under the law will be followed to ensure student safety.

Student Assistance Program (SAP)

In response to the Secretary of Education's plan to the General Assembly, the Department of Education, in collaboration with the Departments of Health and Public Welfare, designated the student assistance program as the vehicle to require and assist each school district to establish and maintain a program to provide appropriate counseling and support services for students who experience problems related to the use of drugs, alcohol and dangerous controlled substances. The Commonwealth's student assistance program is made up of a professionally-trained team and is designed to assist school personnel to identify issues, including alcohol, drugs and others, which pose a barrier to a student's learning and school success, with a systematic process using effective and accountable professional techniques to mobilize school resources to remove the barriers to learning, and, where the problem is beyond the scope of the school, to assist the parent and the student with information so they may access services within the community. Involvement of parents in all phases of the student assistance program underscores the parent's role and responsibility in the decision-making process affecting their children's education and is the key to the successful resolution of problems.

Career Center

Students in all grade levels are invited to visit the Career Center located in the Counseling Office. This is a resource center designed to assist students in their career decision making. Students will find a variety of reference materials such as:

- College and trade school directories
- Reference books on scholarships
- Study materials to prepare for the PSAT, SAT, ACT and Armed Services Vocational Aptitude Battery (ASVAB)
- Other information pertaining to post-secondary education, financial aid, career interest survey, etc.

Students who are interested in visiting the Career Center can do so during their study halls, lunch, or after school. Passes are available before school in the Counseling Office.

Career Planning Days

Students are encouraged to be proactive in exploring possible career paths. Job shadows, college visits, informational interviews of people in the field you hope to pursue and any other meaningful career exploration activities are encouraged. Career planning days can be used for students in grades 9-12. Procedures for career planning days must be followed to have the day counted as an excused absence. Students must provide a note from a parent/guardian to the counseling office prior to the career planning day. Upon return to school, the student must complete and submit a reflection on the career planning activity. Students have three (3) school days to submit the required information for the day to be excused.

Senior SKIP Day (Successful Kids In Practice)

Each October, when 9-11th graders take the PSAT test, seniors are encouraged and expected to be involved in a career exploration activity. Job shadows, college visits, ASVAB tests, or any activity related to a career exploration will be approved. Additional information will be put out annually to students and families regarding this specific career planning day.

Recommended Timetable for College Admission Testing

The chart below contains basic information about the PSAT, SAT, and ACT tests. Specific information pertaining to registration, testing dates, and score analysis will be provided by your child's counselor as it becomes available. These tests (PSAT, SAT, and ACT) are extremely important and the results are one component considered for admission to most colleges and universities.

Freshman/Sophomore Year (October)	PSAT 8/9 and PSAT	<ul style="list-style-type: none"> • Preliminary SAT prepares students for the SAT • Assesses critical reading, writing, and math problem-solving skills • Highly recommended for sophomores
Junior Year (October)	PSAT/NMSQT National Merit Scholarship Qualifying Test	<ul style="list-style-type: none"> • Preliminary SAT prepares students for the SAT • Assesses critical reading, writing, and math problem-solving skills • Used to determine eligibility for the National Merit Scholarship Award
Junior Year Spring Senior Year Fall	SAT	<ul style="list-style-type: none"> • Assesses critical reading, writing, and math problem-solving skills • Practice questions/tests available at www.collegeboard.org
Junior Year Spring Senior Year Fall	ACT	<ul style="list-style-type: none"> • Assesses skill levels in areas of math, English, reading, and science. • Writing is optional but not offered on the February tests. • Can be taken more than once to increase scores • Practice available at www.actstudent.org

Graduation Requirements

The following requirements apply to all students. Credits are totaled for grades 9 to 12:

Language Arts (English)	Credits	4
Social Studies (SS)	Credits	3SS/4SC
Science (SC)	Credits	3SC/4SS
Mathematics	Credits	3
Computers	Credits	0.5
Physical Education /Health	Credits	1.5
Arts and/or Humanities	Credits	1
Electives	Credits	8
TOTAL CREDITS		25.00

In order to commence with your class and receive your diploma, you must earn all course-credits needed to fulfill your graduation requirements by the end of your senior year. Course-credit failures earned in grades 9, 10 and 11 must be made up during or prior to the summer between your junior and senior years.

** All Students in the class of 2021 and beyond must complete three social studies and three science courses as well as one additional Science or Social Studies credit (or .5 credit of each) in order to fulfill the graduation requirement.*

Every student in the class of 2021 and beyond must completely fulfill all graduation requirements established by the West Jefferson Hills School District in order to participate in commencement activities at the end of the school year. Any student who fails to earn 25 credits required for graduation will not be eligible to participate in the commencement ceremony without exception.

State Assessments

In addition to the courses/credits outlined here, all students at Thomas Jefferson High School will also need to demonstrate proficiency on State Assessments as defined by the Pennsylvania Academic Standards included in Chapter 4 of the Pennsylvania School Code.

Keystone Exams

The Keystone Exams are state mandated, end-of-course assessments designed to assess proficiency in the subject areas of Algebra, Literature, and Biology. Students in all Algebra, Biology and English 10 courses will demonstrate their proficiency on the Keystone Exam as an end of year assessment in May. Students who do not score proficient or advanced will re-test 3 times during future test administrations in Winter, Spring, and/or Summer. Demonstrating proficiency on the Keystone Exams is a requirement for graduation from Thomas Jefferson High School. Scoring proficient or advanced will satisfy the local requirement. Students who do not pass the keystone exam after 3 attempts will need to demonstrate proficiency in a remedial class with a final grade of 70% or higher and/or pass the local assessment with a 70% or higher in conjunction with an alternative option listed in PA Senate Bill 1095. The alternative options are listed under “Procedures for Seniors Who Do Not Pass a Keystone Exam.”

Procedures for Students Who Do Not Pass a Keystone Exam After Three Attempts

If a student does not reach at least the “Proficient” level on a Keystone Exam after three attempts, or by the end of the junior year, the student must demonstrate proficiency through a local assessment aligned to the academic standards during their Senior Year. The students can either pass the local assessment with a 70% or higher, or they can complete the remedial class with a final grade of 70% or higher. The local assessment will be facilitated by Thomas Jefferson High School staff members and communicated to the appropriate students.

A student is permitted to take the retest up until the conclusion of his/her junior year. Students with Individualized Education Programs (IEPs) can participate in the retest option and participate in other supplemental instruction, as determined by the IEP Team.

Procedures for Students Who Do Not Pass a Keystone Exam

If a student does not receive a score of “Advanced” or “Proficient” on a Keystone Exam, the student is permitted to take a re-test during designated testing windows established by the Pennsylvania Department of Education. Students may take the retest as many times as desired prior to the conclusion of their junior year.

If a student does not reach at least the “Proficient” level on a Keystone re-test in a particular subject, he or she must demonstrate proficiency through another method in order to meet the graduation requirements.

If a student’s Performance Level is “Basic” on his or her first administration of the Algebra, Literature, or Biology Keystone Exam(s), the student will be provided one of the following forms of remediation: Students who score in the top half of the basic range, as noted by the scaled score, will be provided an Individualized Learning Plan (ILP) that the student will work on independently. The ILP will be developed in conjunction with a content area teacher and will be based on the specific assessment anchors where the student needs additional support. The student may also elect to enroll in the appropriate remedial course.

If the student’s Performance Level is “Below Basic” on his or her first administration of the Algebra, Biology, and/or Literature Keystone Exam(s), the student is required to enroll in the semester course remedial course during the school day in the following school year(s) for supplemental instruction prior to the conclusions of his/her Junior year. Students with Individualized Education Programs (IEPs) can participate in the retest option and participate in other supplemental instruction, as determined by the IEP Team.

Procedures for Seniors Who Do Not Pass a Keystone Exam

A Senior who has basic or below basic scores on the Keystone Exam have alternative ways to graduate under Pennsylvania Senate Bill 1095. In conjunction with a 70% or higher in a keystone remedial course and/or passing the local assessment with a 70% or higher, Seniors will need to successfully complete one of the alternatives:

- Proficiency on the SAT, PSAT, or ACT
- Earning a score of 3+ on an AP Exam
- Completion of a dual enrollment program
- Completion of a pre-apprenticeship program
- Acceptance to an accredited four-year nonprofit institution of higher education
- Completion of a Service Learning Project
- A letter of full time employment
- An acceptable score on a Work Keys Assessment

Alternative Options for Earning Credit

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

1. Higher Education Courses. The following provisions apply to achieving Academic Standards in higher education courses.

- (a) High school students enrolled in a dual enrollment program from an accredited institution of higher education may, with the prior approval of the high school principal, be permitted to use the dual enrollment course to satisfy prerequisite requirements and/or the computer course requirements for graduation. Although high school credit will not be awarded – the college transcript will be attached to the high school transcript provided that:
- The course is taught at the college level and is recognized by the higher education institution as a credit-bearing course.
 - The student satisfactorily completes the requirements of the college course.
 - A transcript of the completed college course is submitted by the higher education institution to the Counseling office.

(b) High School credit for students who exhaust the courses offered at TJHS

2. Education Experiences. Students may demonstrate achievement of Academic Standards and earn elective credit through completion of courses in accredited educational programs outside the school which have a planned course format that meets Chapter 4 regulations and is approved by the principal in advance.

3. OnLine /Cyber Courses

4. Internship

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

Credit Recovery for a Failed Class

There are three (3) options available for a student who has failed a class.

Option 1: Scheduling and re-taking the class the following year/semester at Thomas Jefferson High School. Under this option, the grade and credit earned will be applied to the GPA during the year/semester the class was rescheduled and passed. The GPA earned the year/semester the class failed will not change.

Prior to moving to a next level course, the student is required to successfully pass the prerequisite course. For example, Algebra I must be passed prior to moving to Algebra II and English 1 should be passed prior to being placed in English 2.

Option 2: Completing an approved summer school or equivalent program. Passing a class using this option will not change the student's GPA at Thomas Jefferson High School. However, the course and grade will be listed on the student's transcript as Credit Recovery and the credit will be applied toward meeting graduation requirements.

Option 3: Completing an approved tutoring program consisting of thirty hours of instruction during a six week period. Passing a class using this option will not change the student's GPA at Thomas Jefferson High School. However, the course and grade will be listed on the student's transcript as Credit Recovery and the credit will be applied toward meeting graduation requirements.

1. Assessment. Students may demonstrate achievement of Academic Standard in a course by successful completion of an assessment (e.g., written or oral exams, demonstration of skills, projects) which has been prepared and administered by school personnel. Credit will be awarded and students will be permitted to advance in sequential courses.
2. Credits earned through completion of an approved assessment will be graded on a "PASS/FAIL" basis and will not be computed in the student's quality point average. The assessment option is available only for courses that have been pre-approved by the subject area coordinator and high school principal.

**If a child is not enrolled as a student in the West Jefferson Hills School District prior to graduation, he/she will not receive a Thomas Jefferson High School Diploma.

Assessment of Student Progress

The Board recognizes that a system of assessing student achievement can help students, teachers, and parents/guardians to understand and evaluate a student's progress toward educational goals and academic standards.

Assessment shall be the system of measuring and recording student progress and achievement that enables the student, parents/guardians and teachers to determine a student's attainment of established local and state academic standards; learn the student's strengths and weaknesses; determine where remedial work is required; and plan an educational or vocational future for the student in areas of the greatest potential for success.

- The Board directs that the district's instructional program shall include a system of assessing all students' academic progress. The system shall include descriptions of how achievement of academic standards will be measured and how this information will be used to assist students having difficulty meeting required standards.
- Students with disabilities shall be included in the district's assessment system, with appropriate accommodations when necessary.
- The Superintendent or designee shall develop and implement an assessment system to measure student progress, in accordance with district goals and state regulations.

Grading Practices in the Classroom

- There is a variety of evaluating practices employed by the faculty of West Jefferson Hills School District. Students are evaluated in terms of their performance on various types of tests, quizzes, papers, reports, projects, etc.
- The selection of the instrument for evaluation depends upon the nature of the course, the material, and the student.
- The method for describing performance depends upon evaluation techniques and the nature of the instrument.
- The West Jefferson Hills School District will continue to notify parents in a timely fashion when performance is unsatisfactory in any grading period. Current procedures for the notification process are outlined in the Teacher's Handbook.

Grading System and Weighted Scale

The marking system at Thomas Jefferson High School represents five levels of achievement. These levels indicate a student's achievement as compared with that of others studying the same subject matter.

Quality Points

See course description for unit of credit

COURSE CREDIT	GRADES	POINTS
1	A - Superior attainment (90.00% - 100.00%)	4
1	B - Above average (80.00% - 89.99%)	3
1	C - Average (70.00% - 79.99%)	2
1	D - Below average (60.00% - 69.99%)	1
1	F - Failing (00.00% - 59.99%)	0

COURSE CREDIT	GRADES	POINTS
.5	A - Superior attainment (90.00% - 100.00%)	2
.5	B - Above average (80.00% - 89.99%)	1.5
.5	C - Average (70.00% - 79.99%)	1
.5	D - Below average (60.00% - 69.99%)	.5
.5	F - Failing (00.00% - 59.99%)	0

COURSE CREDIT	GRADES	POINTS
1.5	A - Superior attainment (90.00% - 100.00%)	6.0
1.5	B - Above average (80.00% - 89.99%)	4.5
1.5	C - Average (70.00% - 79.99%)	3.0
1.5	D - Below average (60.00% - 69.99%)	1.5
1.5	F - Failing (00.00% - 59.99%)	0

Advanced Placement Courses

Advanced Placement (AP) Courses are first year college level courses that follow the respective College Entrance Examination Board (CEEB) curriculum and prepare students for the AP test in the particular subject area. On the basis of AP test results, students may earn college credit at colleges and universities that participate in this program. The cost of the exam will be the responsibility of the student. Assistance is available to students that have financial need as requested through the counseling office.

Beginning with the class of 2020, all students in Advancement Placement Courses will be given the 5.0 point scale.

AP English 11	AP Biology	AP European History	AP Calculus AB	AP Studio Art	AP World History
AP English 12	AP Chemistry	AP Computer Science A	AP Physics C	AP U.S. History	AP Spanish
AP Psychology	AP French	AP Calculus BC	AP Statistics	AP Drawing Portfolio	

College in High School (CHS)

The College in High School (CHS Program) enables our teachers to work with local universities in a partnership to offer college level courses. CHS courses provide high school students the opportunity to earn college credits and receive a grade on a university transcript for courses successfully completed at Thomas Jefferson High School. In many cases, students may transfer these credits to other universities. These courses are on the same weighted credit scale as Advanced Placement courses. Students wishing to receive college credit must assume the cost of tuition and fees for college credit.

CHS Intro to Public Relations	CHS Journalism	CHS Public Speaking/Oral Communication	CHS Business Calculus	CHS Calculus AB	CHS Calculus BC
CHS Statistics	CHS Psychology	CHS European History	CHS Shaping the Modern World	CHS Accounting I	CHS Accounting II
CHS French III	CHS French IV	CHS Spanish III	CHS Incubatoredu		

Weighted Scale

As long as courses differ substantially in academic challenge, a weighted scale for computing grade-point average will remain at Thomas Jefferson High School.

Quality Point System

Grade	Regular	Honors	AP and College in High School
A	4	4.50	5
B	3	3.50	4
C	2	2.50	3
D	1	1.00	1
F	0	0.00	0

All Advanced Placement/College in High School and Honors courses will be reviewed annually by the West Jefferson Hills School District Board of Directors and approved as per the Thomas Jefferson High School Academic Handbook. **GPA/QPA will not be given over the phone.** The graduating class of 2020 will be the last Thomas Jefferson High School Class with a class rank.

QPA Calculation Example

Course	Final Letter Grade	Quality Points		Course Credit Value		Quality Point Total
Algebra I	A	4.0	x	1.0	=	4.0
Biology	B	3.0		1.0	=	3.0
			x			
Honors Civics & Government	B	3.5	x	1.0	=	3.5
AP Psychology	B	4.0	x	1.0	=	4.0
Physical Ed.	A	4.0	x	0.5	=	2.0

$$\frac{16.5}{4.5} = 3.67$$
Quality Point Average = 16.5/4.5 = 3.67

Reporting of Student Progress

The Board believes that cooperation between school and home is a vital ingredient in the growth and education of each student. The Board acknowledges the school's responsibility to keep parents/guardians informed of student welfare and academic progress and also recognizes the effects of federal and state laws and regulations governing student records.

The Board directs the establishment of a system of reporting student progress that requires all appropriate staff members, as part of their professional responsibility, to comply with a reporting system that includes academic progress reports, report cards, telephone calls, and parent/guardian conferences with teachers.

The Superintendent or designee shall develop procedures for reporting student progress to parents/guardians.

Various methods of reporting, appropriate to grade level and curriculum content, shall be utilized.

Both student and parent/guardian shall receive ample warning of a pending grade of failure, or one that would adversely affect the student's academic status.

Scheduling of parent-teacher conferences shall occur at such times and in such places that will ensure the greatest degree of participation by parents/guardians.

Report cards shall be issued at intervals of not less than nine (9) weeks.

Review and evaluation of methods of reporting student progress to parents/guardians shall be conducted on a periodic basis.

Percentage Grading System

The marking system uniformly used at Thomas Jefferson High School represents five levels of achievement. These levels are:

- A – Superior attainment of course objectives (89.5%-100%)
- B – Above-average attainment of course objectives (79.5-89.49%) .
- C – Average attainment of course objectives (69.5-79.49%)
- D – Below-average attainment of course objectives (59.5-69.49%)
- F – Performance does not meet minimum standards
- AD- Administrative D Teacher has awarded a student passing grade based on effort (60%)
- W- Student withdrawn from class without earning credit
- WF- Student withdrawn from course and will receive the equivalent of a failing grade
- M- Medical student will receive graduation credit for course but no numeric calculation toward QPA or GPA

Calculation of Final Grades

Reporting of nine-week and semester exam grades will be done by averaging the percentage grade for each marking period. The average percentage will then become a final letter grade for the course. It is important to note that only the final grade will be recorded on the transcript.

Semester Course Grade Calculation Example: Q1: 93% Q2: 82% Semester Average = $(93+82)/2 = 87.5\% = 88\% = B$

Year-long Course Final Grade Calculation Example:

Q1: 82% Q2: 71% Q3: 87% Q4: 93% Year Average = $(82+71+87+93)/4 = 83.25\% = 83\% = B$

Incomplete Rule

Major Course Requirement an incomplete grade ("I") will be entered as the grade for any marking period when a student does not complete a major course requirement. The incomplete will remain as the grade of record until the student completes the major course requirement prior to the end of the course. If the major course requirement is not completed, the incomplete grade will remain on the report card, and the final course grade will be an "F" regardless of quality point average.

Major course requirements subject to this rule include term/research papers; notebooks required for a course; required projects in industrial technology, arts/crafts, home economics, etc. Chapter tests, homework assignments, quizzes, etc., are not considered major course requirements.

Prior approval by the principal is required to implement this rule. Once approval is given, strict procedures for notifying students and parents in advance must be followed.

An extension of time will be made to allow for students who fail to meet major course requirements due to a health problem, death in the family, or some unforeseen problem. Each situation will be evaluated on a case-by-case basis by the building principal.

Appeal Process

Should any parent or guardian have a question regarding a reported grade, it is recommended that a parent contact the school to arrange a conference with the teacher either in person or via phone to receive verification through classroom records. If further inquiries concerning the grade in question are desired, conferences with building administrators/school counselors and teachers may be arranged.

Administrative D

An administrative D can be awarded to a student at the end of a course who has worked hard during the entire course, has done all that the teacher asked, but still obtained a failing average. With administrative approval, a teacher may place an Administrative D as a final average that will be calculated at a 60%. This grade shall be listed on the final transcript as an Administrative D (AD).

Honor Roll

An Honor Roll will be compiled at the end of each nine-week period. Honor Roll status is based upon a student's earned quality point average as follows:

Students with an "F", "D" or "I" (incomplete) are not eligible for honor roll status.

GPA	Honor Roll Recognition
4.0	Highest Honors
3.600 – 3.999	High Honors
3.200 – 3.599	Honors

Graduation Recognition Levels

Upon completion of final senior year grades, a student's final cumulative GPA will be calculated for all four years of high school. Students meeting criteria will be awarded cords and or medallions to wear at graduation to signify their academic accomplishments. The final, cumulative GPA requirement for cords and medallions is listed below.

GPA	Graduation Award Recognition
4.0	Medallion
3.600 – 3.999	Gold Cord
3.200 – 3.599	Silver Cord

National Honor Society

To be eligible for selection into the TJHS Local Chapter of the (NHS) National Honor Society, you must have a cumulative GPA of 3.800 or higher. Cumulative GPA will be assessed after the completion of your sophomore year. The induction ceremony takes place in the fall of the student's junior year. Eligible students will be notified in writing with more details in September by the NHS Adviser. Complete details regarding NHS membership can be found in the Thomas Jefferson High School Chapter of the National Honor Society Chapter Bylaws.

AP Scholar

Students who have taken at least 5 AP examinations and who have scored at least a 3 or greater on 3 or more exams will be recognized as an AP Scholar. AP Scholars will be recognized in the graduation program and a designation will be placed on the individual's diploma with a medal or cord to wear at graduation.

Courses

Click on the courses below to read the course description. A course with an * by it designates that is an NCAA approved course.

English Language Arts

English 9*	English 10*	English 11*	English 12*
Academic English 9*	Academic English 10*	Academic English 11*	Academic English 12*
Honors English 9*	Honors English 10*	AP English: Language and Composition*	AP English: Literature and Composition*
English Language Arts Electives			
CHS Oral Communications*	CHS Intro to Public Relations	Intro to Film Criticism	CHS Journalism
Print Journalism*	Film Criticism	Theater Orientation	Performing Arts

Mathematics

Algebra I*	Pre-Calculus/Trigonometry*	AP CHS Calculus AB*
Algebra II*	Honors Pre-Calculus/Trigonometry*	Honors Algebra II *
Geometry*	Honors Geometry*	Algebra I Self-Paced
Probability and Statistics *	Algebra III/ Trigonometry*	AP CHS Statistics*
Differentiated Math	AP CHS Calculus BC*	
Industry Standards Math	CHS Business Calculus	

Science

Biology*	Physical Science*	Physics*	Anatomy and Physiology*
Honors Biology*	Chemistry*	Honors Physics*	Introduction to Astronomy*
AP Biology*	Honors Chemistry*	College Physics*	
Environmental Science*	AP Chemistry*	AP Physics C*	

Social Studies

Civics and Government*	Honors Civics and Government*	Psychology*
U.S. History*	World History*	Sociology*
AP U.S. History*	AP World History*	Law I*
AP European History*	CHS Shaping the Modern World*	Law II*
AP/CHS Psychology*	<i>Global Leadership Certificate</i>	Economics*

Business and Information Technology

CHS Accounting I	C/C++Programming for Engineering & Artificial Intelligence*	Python-Introduction to Programming	Marketing
CHS Accounting II	Incubatoredu-Entrepreneurship	Exploratory Business	AP Computer Science*
Accounting III	Retail Management	Business Computer Fundamentals	Apple Swift- Xcoding
Personal Finance	Cyber Forensics		

Technology Education

Tech Lab	Engineering	Architecture
Robotics/Drones	Introduction to TJTV	Advanced TJTV
Construction Technology	Theater Construction and Technology	Commercial Design

World Languages

French I, French II, French III and CHS French III*	Spanish I, Spanish II, Spanish III and CHS Spanish III*
AP/CHS French*	AP/CHS Spanish*
	Hispanic Culture and Spanish Conversation

Family and Consumer Science

Introduction to Family and Consumer Science	Foods and Nutrition	Child Development Theory
Fabric, Fashion and Design I	Interior Design	-Nursery School
Advanced Fabric, Fashion and Design I	Adult Living	
Advanced Fabric, Fashion and Design II		

Fine Arts (Arts and Crafts)

Studio Art I	Ceramics Studio I	Mixed Media Arts
Studio Art II	Advanced Ceramics	3-D Art Studio
Photography/Video Production	AP Art: Drawing Portfolio	Creative Studio Media
Basic Graphic Design		

Fine Arts (Music)

Music Theory and History	Jazz Ensemble	Varsity Choir
Music Theory II	Orchestra/Strings Ensemble	Concert Choir
Marching/Concert Band	Percussion Ensemble	A Cappella Chorus
Honors Symphonic/Marching Band	Show Choir	

Physical Education and Health

Physical Education 9	Physical Education 11/12	Foundations of Health and Safety
Health PE/ 10	Sports Theory and Applications	Competitive Team Games 11/12
Individual Fitness Lifetime Activities 11/12		

Steel Center Career and Technical Education

Advertising and Design	Automotive Mechanics	Baking/Pastry Chef	Building Trades
Carpentry	Collision Repair and Refinishing	Computer Information Systems	Cosmetology
Culinary Arts	Electrical Construction	Exercise Science and Rehabilitation Services	Health Assistants
Heating, AC, and Refrigeration	Medical Professions	Medium/Heavy Truck	Protective Service
Veterinary Assistant	Welding		

***Courses may be added or deleted at the discretion of Steel Center**

Schedule Changes

Students are expected to retain the program of studies/courses they have selected during the scheduling process and must maintain a full schedule of courses (7 Credits). Counselors and administration will make conscious efforts to schedule all seniors a full seven credit schedule. There are two types of schedule changes:

- Dropping/Adding a course
- Dropping a course

Senior Ambassador

The Senior Ambassador Program is a volunteer opportunity to assist the high school administrators by providing such things as tours of the building, transition assistance to new students, escorting guests, designing digital display presentations, and other activities throughout the building. The program will only be available to 12th-grade students who must meet the following criteria:

- 12th-grade student - in good standing (passed at least 21 credits)
- Selected 7 courses and 2 alternates as part of the scheduling process; and
- Must have an irresolvable schedule conflict

Dropping/Adding a Course

The Drop/Add Period covers the first 15 days of a year long course (August/September) and the first 10 days for second-semester courses). During this time students are able to change courses more freely than at other times of the year.

Students will have the ability to move from one elective to another elective as space permits. We want to ensure that students are in classes they want to be in. Students are not able to move from one section of a class to another section under this scenario (A student can't move from one English 10 teacher to another English 10 teacher). After the first 15 days of the school year or the first 10 days of the second semester, students will not be able to add a new class, as too much class material will have been covered during the interim.

DROP/ADD COURSE PROCEDURE

Students may add or drop a class within the first three weeks(15 days) of a course without a penalty at the beginning of the school year (August/September). Exceptions may be made with administration approval only for the following reasons: 1) medical reasons; 2) additional coursework that was completed over the summer; or 3) academic misplacement. Students must complete the "Drop/Add Form" which can be picked up in the Counseling Office. Parent signature is required. To drop a course for academic misplacement, a meeting with the parents, administration, counselor, and the classroom teacher must be held prior to the course drop and assignment of a new course.

Dropping a course after the first three weeks(15 days) of school will result in a "Withdrawal " being permanently attached to the official transcript. A withdrawal will not be calculated into the students final GPA in any way. Students that are removed from a course for cheating, non compliance, parent/student decision, or any additional disciplinary reason will receive a "WF Withdrawal Failure". Withdrawal failures will be calculated as an F on the individuals final transcript.

Dropping a Course

For a 1.0 credit class or greater (full year course) any class dropped prior to the end of the first fifteen days of a new school year or the first ten days of the second semester will not be recorded on a transcript. Classes dropped after the first fifteen days of a new school year or the first ten days of the second semester will result in at least a "W" on a transcript which will be part of a student's permanent record. Students may also be assigned a "WF " withdrawal failure if the teacher, administration, parents, or any combination of these three feel it appropriate. Withdrawal Failures will be included when calculating a cumulative QPA and will be the equivalent of an "F" for the year. A WF will be displayed on a students final transcript.

For a .5 credit class or greater (half year course) any class dropped prior to the end of the first fifteen days of a new school year or the first ten days of the second semester will not be recorded on a transcript. Classes dropped after the first fifteen days of a new school year or the first ten days of the second semester will result in at least "W" on a transcript which will be part of a student's permanent record. Students may also be assigned a "WF " withdrawal failure if the teacher, administration, parents, or any combination of these three feel it appropriate. Withdrawal Failures will be included when calculating a cumulative QPA and will be the equivalent of an "F" for the year. A WF will be displayed on a students final transcript

Schedule Change Procedures/Process

- All schedule changes must be initiated by a parent/guardian request in writing (note or email).
- A student's counselor and grade level principal will meet with the student to discuss the ramifications of making a change to the student's schedule.
- A schedule change form must be completed with the signatures from teachers, a parent/guardian, and the student's counselor.
- All changes are accommodated only as space permits in classrooms.

Valid reasons for a schedule change include:

- Inappropriate academic placement resulting in a D or F
- Scheduling error – If a student is incorrectly scheduled for a class, that error will be corrected upon request of a student/parent.
- Ensuring graduation requirements are being met

Invalid reasons for a schedule change include:

- Poor work ethic resulting in failing grades
- After school employment/extra-curricular activities
- Request for teacher change
- Preferred class periods (medical exceptions may apply)
- Having classes with friends
- Overriding the teacher recommendation process after a meeting was held with a signed agreement.

Homebound Instruction

Students who anticipate being absent from classes due to illness for a duration of ten school days or longer should have their parents contact their counselor. Homebound instruction is appropriate for extended absences and can only be considered by the school upon receipt of a physician's written recommendation. (9 weeks or less). Students who require to be out of school for a period of time longer than nine weeks will be recommended to the Thomas Jefferson High School Cyber Program.

PE Medical

Students that are medically unable to participate in Physical Education Class (PE), with a signed note from their physician, shall receive a medical exemption for the course. A medical exception will be indicated on the students final transcript as an "M" Medical. This will count toward the 25 cumulative credits a student needs to graduate from Thomas Jefferson High School. A "M" Medical will have no numeric value when it comes to calculating a student's QPA or their final GPA. Medical Exemptions are good for one school year. Students with chronic or life long conditions will need to renew their medical at the beginning of each new school year.

Making up Failed Subjects

If a subject is failed, it can be made up in the following ways:

- Repeating the subject the following year
- Repeating the subject at an accredited summer school program (2 Credit Maximum Per Year)
- Repeating the subject through an administratively approved tutoring program

Students who plan to take courses during the summer in order to satisfy sequential course requirements, who plan to make up failed course or who plan to take courses for personal improvement (i.e., computer courses) must complete and submit a Summer Course Work Form to the counselor for approval before registering or beginning any courses that are to appear on the student's high school transcript. **August 15 is the deadline for completion of such summer course work for all students unless otherwise approved by the principal.** All courses taken over the summer will become part of the student's academic record and will be averaged into the existing student GPA . A successful summer school grade will not replace a failing grade that was earned during the school year.

Prior to moving to a next level course, the student is required to successfully pass the prerequisite course. For example, Algebra I must be passed prior to moving to Algebra II and English 1 should be passed prior to being placed in English 2.

SUMMER COURSE WORK FORMS ARE AVAILABLE IN THE COUNSELING OFFICE. STUDENTS MUST HAVE NECESSARY PAPERWORK FROM THEIR COUNSELOR PRIOR TO STARTING SUMMER SCHOOL.

Subject Load

All students are required to carry a minimum of 7 credits annually during the Freshman, Sophomore, and Junior years.. Steel Center students must be enrolled in 4 credits during their Sophomore and Junior years at Thomas Jefferson High School. In conferences each year, every effort is made to give individual attention to course selection, sequential pattern of courses, and to meeting all requirements of both the State of Pennsylvania and Thomas Jefferson High School for graduation. College-bound students should carry at least four (4), and preferably five (5), strong academic subjects each year. Colleges urge students to carry a heavy subject load in the senior year in order to prepare for the rigorous loads and faster pace which they will encounter during the college freshman year.

NCAA Clearinghouse

All students participating in athletics should be made aware that not all classes count towards the NCAA Clearinghouse. All athletes that are planning to participate in an NCAA sport are required to pass the NCAA Clearinghouse requirements. Please stop in to see you counselor or the athletic director when planning your courses in order to avoid scheduling issues and taking multiple courses to meet the requirements. More information on NCAA Eligibility can be found at http://fs.ncaa.org/Docs/eligibility_center/Student_Resources/CBSA.pdf

Course Audits

Students are permitted to audit courses for no credit provided that:

- Space is available in the course request
- Teacher approval is granted
- Student's existing schedule has free periods to assign course to be audited
- Course audit must begin within the first two weeks of the course.

Although course audits do not carry any credit and do not affect class rank or quality point averages, the course audited and the grade earned (A, B, C, D, or Pass/Fail) will be typed on the student's Permanent Record Card at the end of each semester. A progress report will also be placed in the student's cumulative folder.

Sample Programs

Grade Level	College Preparatory	General	Career and Technical Education
9	English 9 Social Studies Algebra I/Geometry Honors Biology*** World Language or other elective* Physical Education Computers	English 9 Social Studies Algebra I or Geometry Biology*** Physical Education Computer Elective Elective*	English 9 Social Studies Biology*** Algebra I*** Physical Education Software Apps/Computer Elective Arts and Humanities Elective - 1 cr
10	English 10 or Honors English Social Studies Geometry Honors Chemistry*** World Language or other elective* Physical Education/Health	English 10 Social Studies Geometry or Algebra II*** Chemistry*** Physical Education Health Elective*	English 10 Social Studies Geometry*** Physical Science Technical Education - 4 credits
11	English 11 or AP English Social Studies Algebra II Honors Physics or AP Chemistry*** World Language or other elective* Physical Education	English 11 Social Studies Algebra II or Pre-Calculus Physics*** Physical Education Elective*	English 11 Social Studies Algebra II *** Physical Education/Health Technical Education - 4 credits
12	English 12 or AP English Social Studies** AP Science or Science Elective*** Stats and Probability/Calculus or AP Calculus Physical Education 3 Electives**	English 12 Social Studies** Environmental Science/Physics*** Pre-Calculus*** Physical Education 3 Electives**	English 12 Social Studies**** Environmental Science Physical Education Technical Education - 4 credits

*The elective must be one (1) full credit course or .5 credit course each semester.

**Must be used to meet Arts and/or Humanities requirements if not already met.

***Level of Mathematics and/or Science taken will depend on the Mathematics and/or Science taken the previous year and the grade earned.

****Must be used to meet Arts and/or Humanities requirements.

*****Each student and their counselor will determine which course better suits their career plans and academic needs.

English Language Arts

English Language Arts

The Thomas Jefferson English program allows students the opportunity to be challenged in the areas of reading, writing, listening, speaking, and thinking. Classroom activities foster reading and listening comprehension; creative and critical expression; technical, library and study skills; and cultural literacy and appreciation. The high school English program provides for the needs of all students at all levels. Turnitin.com will be utilized for essay submissions at each level. Turnitin.com scans submitted essays to search for evidence plagiarism within student writing.

English Summer Reading

Summer reading is part of the required curriculum for all students. Selections and assignments will be distributed at the end of the school year and should be completed before entering each grade level in the fall.

English Course Offerings

LA1104 English 9

The English 1 course, concentrates on developing reading, writing, speaking, listening, and study skills necessary for college by investigating a variety of genres of world literature to increase the student's awareness, understanding, and appreciation of the various forms and styles of writing. Reading, speaking, listening, and writing skills are emphasized in all units of study. The course covers literary genres including short story, drama, novel, poetry, mythology, and nonfiction. Writing skills include narrative, persuasive, and expository modes of discourse as well as research skills.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

LA1105 Academic English 9

In this accelerated Academic English 1 course, students concentrate on developing and refining reading, speaking, listening, writing, and critical thinking skills. Students read, analyze, and respond to a variety of literary genres including the short story, novel, drama, mythology, and poetry and informational texts with emphasis on close and careful reading, vocabulary acquisition, making connections among ideas between texts, providing textual evidence, and analyzing and interpreting both fiction and nonfiction. Strategies are learned and practiced to develop appropriate methodologies in analyzing the author's purpose; clarifying vocabulary meaning; comprehending the literary work; supporting interpretations; comparing, analyzing, and evaluating literary forms, elements, devices, and universal significance; and text organization. Students also work to develop skills in expository/informative, persuasive/argumentative, descriptive, narrative, and creative writing as well as the ability to engage in evidence-based analysis of texts and research that is clear and focused and conveys a well-defined perspective and appropriate content for specific audiences. Learning, reviewing, and applying conventions of Standard English grammar are an integral part of this writing process. Communication skills that enable critical listening and effective presentation of ideas are stressed through formal speaking situations, group discussions, and class presentations. A research project that demonstrates proficiency in critical thinking, analysis, and writing learned and practiced during the course must be completed satisfactorily in order to pass the designated grading period. Assessments include a variety of writing responses, quizzes, tests, projects, oral presentations, homework, and class participation.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1106 Honors English 9

In this honors level English course, students will work on developing close reading skills and focused writing strategies in order to prepare for future work in honors and Advanced Placement English courses. Students enrolled in this course should welcome academic challenges and demonstrate adept reading, writing, and critical thinking skills. The course will progress at a more rigorous pace and include more challenging readings compared with other ninth grade English course offerings. The writing requirements include an overview of all composition types expected in future honors/AP courses including but not limited to: research, literary criticism, expository/informative, and persuasive/argumentative. The study of grammar and vocabulary will be emphasized during writing instruction. Literary genres include the study of fiction, nonfiction, poetry, and drama. Students should expect to read independently outside of class and write frequently. Enrollment in this course requires a strong work ethic, good study habits, and the ability to work independently. A recommendation from the eighth grade reading and language arts teachers is highly advised for entrance into this class.

Prerequisites: Students must earn an "A" average in their 8th grade reading and language arts classes. Additionally, they must score proficient or advanced on the literature PSSA. PVAAS literature projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1110 English 10

The English 2 class focuses on a variety of literary genres in both fiction and non-fiction, including short stories, poems, novels, plays, and essays. The emphasis of the course is on reading and writing in order to prepare for the Keystone Literature Exam taken in May. Students will focus on writing short essays using specific details from their texts as support for their main ideas and that contain elements of research. Students will be expected to complete some work outside of class. Study skills will be incorporated that help students with time management and organization. Students will also be introduced to vocabulary and grammar concepts and asked to apply them to their comprehension and writing skills. Each unit of study focuses on necessary components of reading and writing, including author's purpose, text structure, point of view, theme, plot, characters, allegory, bias and propaganda techniques, literary elements, and figurative language. The goal of English 2 is to prepare students for the Keystone Literature Exam, English 3, and college.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1111 Academic English 10

The Academic English 2 class focuses on a variety of literary genres in both fiction and non-fiction, including short stories, poems, novels, plays, speeches, and essays. The emphasis of the course is on reading and writing in order to prepare for the Keystone Literature Exam taken in May. Students will focus on writing short essays that use specific details from their texts as support for their main ideas and contain components of research. Students are expected to complete work outside of class independently, so organization and time management are necessary. Each unit of study focuses on necessary components of reading and writing, including author's purpose, text structure, point of view, theme, plot, characters, allegory, bias and propaganda techniques, literary elements, figurative language, and poetry terminology. Vocabulary and grammar are also major components of the Academic English 2 curriculum. The goal of Academic English 2 is to prepare students for the Keystone Literature Exam, Academic English 3, and college.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1112 Honors English 10

In this tenth grade honors English course, the student will continue to develop the reading and writing skills and strategies required for advancement into AP English. Students in this course should meet the challenges of a rigorous curriculum and have strong skills in reading, writing, and critical thinking. The course focuses on reading and exploring different genres of literature from all over the world and contains fiction and nonfiction selections on a more difficult reading level than the other tenth grade English courses. Students consider the author's purpose, audience, tone, and use of literary devices to enrich their understanding of each literary work. A major component of the course is building strong writers through frequent expository, persuasive, informative, literary analyses, and research-based writings in class and at home. In addition, the course emphasizes speaking skills that aid in clear communication. Because the class pace is accelerated and evaluative standards are high, students are awarded quality points under the honors scale. A recommendation from the ninth grade English teacher is highly advised for entrance into this class.

Prerequisites: Student must earn an "A" average in the ninth grade Academic English class or an "A" or "B" in the ninth grade Honors English class and have scored proficient on the PSSA Literature Examination. PVAAS literature projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1117 English 11

The English 3 course, designed to further develop the reading, writing, and speaking skills necessary for success in college, the work force, or the next level of education for the student, is a study of the major periods of American literature from the colonization of America in the early 1600s to the present day. Authors are examined in relation to the historical background of the times in which they lived. Literary changes and developments are studied by comparing different time periods and movements. Writings will include narrative, persuasive, descriptive, expository, and creative formats. A research project involves career exploration.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1118 Academic English 11

The major thrust of the 11th grade Academic English course is to develop an understanding of American literature, from the nineteenth to the twenty-first centuries, through a chronological approach emphasizing the values, techniques, and historical backgrounds for each literary period. Students will examine their native literature in oral and written expression with a balance of expository analyses and creative projects. Students will engage in activities and lessons designed to aid in preparation for taking the SAT exam. The research project involves career exploration.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1119 (AP)Advanced Placement English: Language and Composition

Students enrolled in this course should welcome academic challenge and demonstrate advanced reading, writing, and critical thinking skills. In this college-level English course, students read a wide variety of academic texts and work to improve their writing style and analytical strategies through the study of rhetoric. As students digest the core texts, they examine how a given historical climate produces and influences both fiction and nonfiction literature. The writing requirements include an independent research project, critical literary analysis, rhetorical analysis essays, synthesis essays, and argument-based persuasive essays. By the end of the year, students should be able to closely analyze literature and write with a more focused sense of purpose and style. Students should be aware of how their writing fits with the occasion, the audience, and the purpose. Students who enroll in this course are prepared for and encouraged to take the AP English Language and Composition exam in the spring. A recommendation from the sophomore level English teacher is highly advised for entrance into this class.

Prerequisites: Students must earn an “A” or high “B” average in their sophomore-level English class (Honors or Academic) and score proficient or advanced on the Keystone Literature exam. PVAAS literature projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1124 English 12

The English 4 course includes a chronological and interpretive study of various genres of British literature from the Anglo-Saxon period to modern day. Reading, writing, and critical thinking skills are integrated, refined, and extended in preparation for entrance into an institution of higher learning, the military, and/or the workforce. Additionally, a research project involves charity/ foundation exploration..

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1126 Academic English 12

With an eye for preparing students for both the collegiate classroom and the innovation economy of the future, students enrolled in this course will be responsible for crafting their own academic English 4 experiences under the watchful eye, tutelage, and facilitation of the instructor. Students will individually and collaboratively identify and solve problems important to them, create solutions to the problems of the world’s future, read major works from Geoffrey Chaucer, William Shakespeare, and other prominent British authors of their own choosing, and learn other skills necessary for success, including APA formatting, at the college level. The culmination of the course will be a presentation of some aspect of each student’s learning from throughout the year to their peers and, possibly, local and national business leaders.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA1129 (AP) Advanced Placement English: English Literature and Composition

Admission to this course is based on the provisions set forth in this handbook. This course includes classical, world, and English literature. After reading significant poetic works, plays, and novels, the students should be able to clearly express and logically defend their ideas. Critical thinking is balanced with creative expression so that these supporting ideas are not limited to discussions and compositions, but also include oral presentations and dramatic interpretations. Accordingly, the ability to work well in group situations is essential. A major requirement is an extensive research project. Taking the AP test in May is an important component of this course and is highly encouraged. Quality points for this course are awarded under the advanced placement scale.

Prerequisites: Students must earn an “A” or high “B” average in their sophomore-level English class (Honors or Academic) and score proficient or advanced on the Keystone Literature exam. PVAAS literature projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

LA101 Keystone Literature

This course is designed for the student that has not shown proficiency on the Keystone Literature Exam. Keystone Literature is tailored to address the needs of individual students based on student-specific test data. Content emphasis will be placed on the assessment anchors and eligible content identified as “needs” in the Individual Student Reports.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

Elective English Courses

LA1148 Print Journalism - Yearbook

In this 21st century, cross curricular, project-based class, students work collaboratively by using technology such as digital cameras, photo editing software, and Adobe InDesign or online design software to digitally produce a yearbook and school newspaper. Students use writing skills, communication skills, and creativity to tell the story of the school community and peers in an engaging way. Students demonstrate knowledge of graphic design and think creatively when organizing information within the yearbook. In this college and career ready course, students think critically to meet deadlines, track to goals, and utilize multimedia to market and disseminate information that aligns with and models an actual business.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1158 Film Criticism

In what is the sequential course to *Introduction to Film Criticism*, students will review key concepts from the introductory course for use in learning to apply literary critical reading skills to selected films and genres. Additionally, in *Film Criticism*, students will recognize and study the implementation of literary devices in film and understand how said literary devices can both help and harm a film's plot. Once a solid, baseline knowledge of these three items has been achieved, students will study three relatively unknown genres of film, including horror, science fiction, and film noir, and students will also study the authorial styles of three prominent directors from each of these genres. Ultimately, students will demonstrate their ability to recognize, apply, and analyze course material in written analyses and presentations of student-selected films pertaining to the genres and authorial styles studied during class, hopefully improving their conception of quality filmmaking along the way.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1157 Introduction to Film Criticism

Through a thorough study of filmmaking process, cinematic conventions, and three current genres of film, students will gain an appreciation and ability to "read" a film beyond its standard on-screen meaning for deeper understanding behind the goals and motivations of the film's director, producer, and producing studio. Using this knowledge, students will present their own critique of a film in which they identify the cinematic conventions used in their selected film to discern the message or goal of the director that lies beneath the visual surface of the film. Students will further apply these skills to films of three different genres (westerns, romantic comedies, and musicals). Ultimately, students will apply their knowledge of both cinematic conventions and genre to films from the selected genres of their own choosing, creating both verbal presentations and writing comparative essays. Through an introduction to the analysis of film, students will gain a more critical eye for the world around them and be more inclined to question and ponder events and occurrences that interest them.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1146 CHS Introduction to Public Relations

This course is designed as an introduction to public relations that provides a foundation for understanding the role and function of public relations and public opinion in American society, business and industry, and in the international community. Students are exposed to various modes of written and verbal communication and will work on fine-tuning their presentation skills. The course begins by defining public relations and works toward applying the knowledge gained in an agency setting. Students learn how to plan and execute an event, handle publicity and media relations, and write for professional publications. This class serves as a real-world exposure to the world of PR, similar to an internship experience. A CHS option will be available for interested students.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1147 CHS Journalism

This course is designed to serve as an introduction to the world of journalism in the 21st century. Students will be exposed to all modes of journalism through a general overview approach. Topics include but are not limited to: print journalism, photojournalism, digital journalism, and broadcast journalism. We will begin the course by exploring the fundamental goals of a journalist and the ethics that should govern one's work. Once the basic principles have been covered, students will explore, analyze, and create journalistic works, both individually and within small groups. By the end of this course, students should be able to: identify audience and purpose, capture and sustain the audience's attention, understand the journalistic writing and editing process, use technology to gather and present information, and communicate effectively through written, verbal, and visual means. Students will also become familiar with current events and modern trends in the field. A CHS option will be available for interested students.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1153 Performing Arts

This course is designed as a wide-ranged, exciting study of theatre for students with theatre experience or students who have taken Theatre Orientation. The class develops the students' skills in self-expression and technical skills in other aspects of theatre.

This class emphasizes creativity. This course will be comprised of two types of units. Core units will be offered each year in the interest of developing basic skills in performing and technical theatre. Flexible units will be offered once every three years in the interest of acquainting students with the varied elements of theater, such as armed and unarmed stage combat, special effects makeup, advanced puppetry, children's theatre, physicality, choreography, and advanced improvisation.

Prerequisites: Passing grade in Theatre Orientation **AND** Recommendation from the subject department head is required.

Periods per week: 5 Unit of Credit: .5 per semester Semesters: 1 or 2

LA1143 CHS Oral Communications

This course,formerly known as Public Speaking, benefits students looking to gain greater confidence in oral communication and/or those interested in careers in communications, education, law, business, or leadership in any field. Units in the ethics of communication, building confidence, speech organization, methods of delivery, and effective use of body, voice and language are included. The student is provided with the opportunity to develop communication skills in the preparation and delivery of speeches to inform, demonstrate, entertain, persuade and inspire. The student learns to think critically, express ideas clearly, gain confidence in front of an audience, and listen analytically to others. A CHS option will be available for interested students.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

LA1152 Theatre Orientation

This one-semester course offering is for students with no or little theatre experience and it introduces them to theatre at the high school while gaining performance skills and confidence. This is a participation based class with a focus on the student's own qualities as a means of self-expression. In this course, the student takes the first steps in developing the voice, body, and mind as the tools of an actor through various activities and improvisation. The student has the opportunity to present a monologue, puppet show, lip sync, pantomime, and short play along with many other productions. Students will study dramatic literature, create performance pieces, and learn about staging. Students looking to get involved in the school's dramatic productions are encouraged to take this course. This course is required for Performing Arts.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

Mathematics

Mathematics

The mathematics program at Thomas Jefferson High School is a contemporary approach to teaching mathematics that exposes all students to a variety of math topics including algebra, geometry, probability, statistics, logic, and discrete math. The program is in complete compliance with national and state standards. In addition, successful completion of the program through Pre-calculus/Trigonometry assures that each student has been introduced to the skills and background necessary for success in subsequent post-secondary math courses.

All Students at Thomas Jefferson High School will be required to purchase or rent a graphing calculator for use during all math courses. The School district recommends a TI 84 or its equivalent. Students will have the ability to rent a calculator from the math department at cost of \$50 for the 2019-2020 school year.

MA1301 Algebra I

Algebra I develop the foundational skills for success in all future mathematics courses. This course will focus on solving equations, and while much emphasis is placed on linear functions, students will also be introduced to factoring quadratic expressions, which is an essential skill for subsequent courses. In addition, students will solve simple and compound linear inequalities and graph their solutions on a real number line. They will also solve and graph systems of linear equations and inequalities. Students will be required to apply these skills in real-world situations such as seeing the slope of a function as a rate of change and creating a line of best fit to make predictions based on a set of data. An introduction to Data Analysis and Probability is given. Students will take the Keystone Algebra I exam at the culmination of this course. Upon successful completion of Algebra I, students should enroll in Geometry or Differentiated Mathematics (teacher recommendation only).

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MA1307 Algebra I B Self Paced

Students who have successfully completed the Introduction to Algebra course at the middle school will enroll in the Algebra I (Self-Paced) course at the high school level so that they may continue their study of the topics tested on the Keystone exam. The course begins with a review of solving linear equations and writing equations lines. In addition, students will focus on writing and solving systems of linear equations and solving systems of linear inequalities by graphing them on the coordinate plane. Students will also be introduced to polynomial expressions and be expected to perform various operations with them. Students will learn to factor quadratic expressions, which is a key foundational skill for all future math courses. Additional topics include simplifying radical expressions, applying exponent rules, application of the Pythagorean Theorem, data analysis (measures of central tendency) and probability. Students will have the benefit of working at a slower pace, and thus, can spend extra time remediating skill gaps that may exist before mastering new concepts. Using technology to facilitate learning will be an integral part of this course. Upon completion of this course, students should enroll in Geometry or Differentiated Mathematics (teacher recommendation only).

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MA1304 Geometry

This course offers a thorough introduction to the basic concepts of Euclidean Geometry and prepares students for the geometry portion of the SAT test. Students will apply the characteristics of angles as well as parallel and perpendicular lines. They will write algebraic and geometric proofs that focus on congruency and similarity. Students will explore the properties of polygons with the main emphasis on the different types of quadrilaterals. Students will find the surface area and volume of multiple three-dimensional shapes such as prisms, pyramids, cylinders, cones and spheres. Students will be introduced to properties of circles and to right triangle trigonometry. Students must have satisfactorily completed Algebra I to enroll in this course since much emphasis is placed on the application of algebra skills. Upon successful completion of this course, students would take either Algebra II or Differentiated Mathematics (teacher recommendation only).

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MA1305 Honors Geometry

This is a fast-paced, rigorous course that offers a thorough investigation of Euclidean Geometry through a series of conjectures and formal proofs. Students will explore and apply the theorems of triangle congruency as well as properties of polygons, circles, and various three-dimensional objects. Other course topics include: determining the perimeter and area of two-dimensional shapes, calculating the surface area and volume of prisms, pyramids, cylinders, cones and spheres, and applying probability to geometric situations. Students will study and apply the various properties of circles including arc length and the area of sectors. They will also be introduced to right triangle trigonometry and its applications. Upon successful completion of the course, students are eligible to take Honors Algebra II or Algebra II.

Prerequisites: Students must earn an “A” average in Algebra 1. Additionally, they must score proficient or advanced on the Algebra 1 Keystone and 8th grade Math PSSA. PVAAS mathematics projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA1302 Algebra II

Algebra II develops advanced algebra skills in concepts such as solving and graphing all of the following types of functions: quadratic, absolute value, polynomial, radical, rational, exponential and logarithmic. Students will develop an understanding of function notation, inverse functions and the complex number system. The course also introduces students to probability and statistical analysis required for the SAT exam. This course prepares students for Algebra 3 and Trigonometry, Precalculus and Trigonometry or Probability and Statistics.

Grade Recommendations for Algebra II: “C” or higher in Geometry, students must have also scored advanced or proficient on the Keystone Algebra 1 exam. PVAAS mathematics projections and NWEA Map Growth data will also be factored into the teacher recommendation process.

Periods per week: 5 Units of Credit: 1 Semesters: 2

MA1303 Honors Algebra II

Honors Algebra II is a rigorous course in which students will cover all topics of a traditional Algebra II class at a faster pace and more in-depth. Students will also study several additional concepts such as solving systems of equations that combine linear and quadratic functions both graphically and algebraically. Students will work extensively with graphing rational functions by finding their points of discontinuity and describing their end-behavior. To prepare students for Honors Precalculus and Trigonometry, time is devoted to the study of trigonometric functions beginning with a review of right triangle trigonometry and moving into the study of the six trigonometric functions. Students will work with both degree and radian measure of angles and begin the study and application of the unit circle. In order to prepare students for the SAT exam, students will also complete units on data analysis and probability. Upon successful completion of this course, students would traditionally take either Honors Precalculus and Trigonometry or Precalculus and Trigonometry, although students could elect to take Algebra 3 and Trigonometry or Probability and Statistics.

Prerequisites: Students must earn an “A” average in Honors Geometry. Additionally, they must score proficient or advanced on the Algebra 1 Keystone and 8th grade Math PSSA. PVAAS mathematics projections and NWEA Map Growth data will also be factored into the teacher recommendation process.

Periods per week: 5 Units of Credit: 1 Semesters: 2

MA1306 Differentiated Math

Students that enroll in the Differentiated Math course should be recommended by their previous math teacher (typically Geometry). Teachers will recommend this class for any students who struggle with math concepts that would likely cause them to achieve at a below average level when compared to their peers in future math courses such as Algebra 2. For students to have the best chance at being successful in subsequent math courses, they should be provided remediation on these skills. Therefore, this course is completely individualized to meet the specific needs of each student. At the beginning of the course, each student will complete a diagnostic exam to **identify** his or her needs. An individualized learning plan will be created and will drive that student's learning throughout the course. Each student will have his or her own learning targets and will work at his or her own pace, with the help of the instructor, to meet those targets. Another benefit of this course is that, once students have met their learning targets, they can choose to work on advanced material to further prepare them for the next sequential mathematics course.

Upon successful completion of the student's personalized pathway through the Differentiated Mathematics course and with teacher-recommendation, students can enroll in Algebra 2.

Periods per week: 5

Units of Credit: 1

Semesters: 2

MA1323 Algebra III/ Trigonometry

Algebra III and Trigonometry will extend students' knowledge of functions, focusing heavily on solving linear, quadratic, absolute value, rational, radical, higher-order polynomial, logarithmic and exponential equations. Students will review graphing transformations of parent functions as well as learn to graph rational functions by determining their points and types of discontinuities. Students will extend their knowledge of horizontal and vertical asymptotes to graph transformations of exponential and logarithmic functions. Students will deepen their knowledge of right triangle trigonometry to the study and application of the unit circle. Students will discover and apply various trigonometric relationships, and graph the six trigonometric functions. Students enrolling in this course would do so after completing Algebra II. Students would select this course, as opposed to Precalculus and Trigonometry, if they felt as if they needed more work on algebraic topics and are not necessarily planning on taking Calculus in high school.

Grade Recommendations for Algebra 3 and Trigonometry: "C" or higher in Algebra 2

Periods per week: 5

Units of Credit: 1

Semesters: 2

MA1320 Pre-Calculus/Trigonometry

Precalculus and Trigonometry is a college-preparatory course for students who have successfully completed Algebra II and is designed to extend their knowledge of algebraic, geometric and trigonometric concepts. Algebraic course topics range from a review of parent functions to furthering the study of polynomial and rational functions. Students will extend geometric concepts of right triangle trigonometry to the study of the unit circle. Students will establish and apply trigonometric identities as well as solve trigonometric equations, and graph trigonometric functions. Students will apply the Law of Sines and Law of Cosines as well as graph polar equations. This course prepares students for Calculus.

Grade Recommendation for Precalculus and Trigonometry: "B" or higher in Algebra 2 or "C" or higher in Honors Algebra 2

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MA1322 Honors Pre-Calculus/Trigonometry

Honors Precalculus and Trigonometry is a fast-paced, rigorous, college-preparatory course for advanced students who have successfully completed Honors Algebra II. It is designed to extend students' knowledge of algebraic, geometric and trigonometric concepts. Algebraic course topics include polynomial and rational functions, arithmetic and geometric series and sequences, polar graphing and conic sections. Special emphasis is placed on introducing students to the calculus concept of limits, when applicable. Students will also extend geometric concepts of right triangle trigonometry to an in-depth study of establishing and applying identities, solving equations, graphing trigonometric functions and their inverses as well as applying the Law of Sines and the Law of Cosines. Quality points for this course are awarded according to the district policy. This course prepares students for Advanced Placement Calculus or Calculus.

Prerequisites: Students must earn an "A" average in Honors Algebra II. PVAAS mathematics projections and NWEA MAP Growth data will also be factored into the teacher recommendation process.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MA1324 Calculus

The Calculus course is a rigorous course that covers many of the topics typically taught in a traditional college Calculus 1 course. This course is intended for students that have successfully completed either Precalculus and Trigonometry or Honors Precalculus and Trigonometry. Students must have a solid background in algebra and trigonometric topics covered in previous courses. The course starts with a brief review of some of the necessary prerequisite algebra skills including graphing functions and solving equations. Then the course moves into the study of calculus topics including Limits, Differentiation and Integration. Additionally, applications of each calculus topic are studied throughout the course. This course prepares a student for a college Calculus class.

Grade Recommendation for Calculus: “B” or higher in Precalculus and Trigonometry with a “C” or higher on the midterm and final, or a “C” or higher in Honors Precalculus and Trigonometry with a “C” or higher on the midterm and final

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA1325 CHS Business Calculus

This Calculus course is a rigorous course that covers all of the topics typically taught in a traditional college Business Calculus course. The curriculum will follow that of the University of Pittsburgh’s Math 0120. Upon successful completion of the course, students can earn 4 college credits. There is no AP exam for this course. This course is intended for students who have a strong background in algebraic manipulation, including work with logarithmic and exponential equations/expressions and who score a 61 or higher on the ALEKS placement exam. Students can take this course with a lower ALEKS score but will not be eligible for University of Pittsburgh credits. Business Calculus is designed for students who plan to major in business, economics or other social sciences and is not intended for students who plan on majoring in science, engineering or mathematics. Quality points for this course are awarded according to the district policy.

The topics of study include Limits, Differentiation and Integration. Application of these topics is a fundamental element of this course, and students will spend a great deal of time learning how mathematics can be applied to real world business situations like profit maximization, break-even points, cost/loss minimization, optimization, and marginal analysis.

Prerequisites: Students must earn an “B” average or higher in Honors Precalculus/Trigonometry or an average of 85% or higher in Precalculus/Trigonometry. PVAAS mathematics projections will also be factored into the teacher recommendation process.

MA1326 AP/CHS Calculus AB

The AP Calculus course is an extremely rigorous and challenging course that covers all of the topics typically covered in a traditional college Calculus 1 course. This course is designed to meet the curricular requirements for both Advanced Placement and the University of Pittsburgh’s Math 0220. Students enrolled in the University of Pittsburgh class will have the chance to earn 4 college credits. Taking the AP test in May is a very important component of the class, and it is highly recommended that all students enrolled in the course take the AP test. This course is intended for students that have successfully completed Honors Precalculus and Trigonometry and have received a recommendation from their Honors Precalculus and Trigonometry teacher. Quality points for this course are awarded according to the district policy. **This course is intended for students who plan on majoring in science, engineering or mathematics, etc. To be eligible to take this course for college credit, students must pass the ALEKS placement test with a score of 76 or higher prior to the start of the course. Students can take this course with a lower ALEKS score, but this is not recommended due to the course’s level of rigor.**

The topics of study include Limits, Differentiation and Integration. Applications of each of these topics are also taught in great detail. Additionally, key theorems (including the Intermediate Value Theorem, Extreme Value Theorem, Mean Value Theorem, Rolle’s Theorem, Fundamental Theorem of Calculus) are explained, discussed and stressed.

Prerequisites: Students must earn at least an 85% average in Honors Precalculus/Trigonometry. PVAAS mathematics projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA1327AP/CHS Calculus BC

The AP Calculus course is an extremely rigorous and challenging course that covers all the topics typically covered in a traditional Calculus 2 course. This course is designed to meet the curricular requirements for both Advanced Placement and the University of Pittsburgh's Math 0230. Students enrolled in the University of Pittsburgh class will have the chance to earn 4 college credits. Taking the AP test in May is a very important component of the class, and it is highly recommended that all students enrolled in the course take the AP test. This course is intended for students that have successfully completed AP Calculus AB and have received a recommendation from their AP Calculus AB teacher. Quality points for this course are awarded according to the district policy.

The course will include a review of Limits, Differentiation, Integration and the applications of these topics. New topics will include additional integration methods and applications, L'Hopital's Rule, Improper Integrals, Series and Sequences, Polar Coordinates, Parametric Equations, Vectors and an introduction to Differential Equations.

Prerequisites: "B" or higher in AP Calculus AB

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA1340 Probability and Statistics

This course is designed to provide an introduction to the foundations of probability and statistics. Topics will include probability, normal distributions, confidence intervals, and hypothesis testing. This course is designed for the students that have already completed Algebra II successfully.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA1341 AP/CHS Statistics

This is a rigorous and challenging Advanced Placement course that prepares students to take the AP Statistics exam upon its completion. Throughout the course, students will learn to select appropriate methods for collecting and analyzing data, represent patterns and trends in data numerically and graphically, compare distributions of data, use probability and simulation to study random events, and develop and justify an argument based on evidence from data, definitions and statistical inference. Units of study include: exploring one and two-variable data, collecting data, probability, random variables and probability distributions, sampling distributions, inference for categorical data: proportions, inference for categorical data: chi-square, and making inferences using quantitative data. Taking the AP test is a very important component of the class, and it is highly recommended that all students enrolled in the course take the exam. Quality points for this course are awarded according to the district policy.

Prerequisites: Students should have passed Algebra 2 with a "B" or higher. PVAAS mathematics projections will also be factored into the teacher recommendation process.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MA100 Keystone Algebra

This course is designed for the student that has not shown proficiency on the Keystone Algebra Exam. Keystone Algebra is tailored to address the needs of individual students based on student-specific test data. Content emphasis will be placed on the assessment anchors and eligible content identified as "needs" in the Individual Student Reports.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

Science

Science

The philosophy of the Science Department at Thomas Jefferson High School is to educate every student in the disciplines of the life sciences and the physical sciences. The purposes of scientific investigation and discovery are to satisfy ones quest for knowledge and understanding and to preserve and enhance the quality of life experience. We as teachers will work diligently to expose today's youth to the richness and excitement of scientific discovery through reading, writing and analysis of scientific problems. As educators, it is our duty to further our education in the scientific world, which is continuously changing. We must make informed decisions regarding contemporary issues by taking into account economic cost, respect for living things and public policy and legislation. The development of a scientific mind requires curiosity, patience, persistence, attention to accuracy and precision, and the respect for historical contributions.

Biology Courses

SC1410 Biology

This is a challenging biology course designed for ninth grade students. It includes lectures, class discussions and weekly hands-on laboratory inquires, which will develop observation, reasoning and critical thinking skills. Students will explore such topics as: biological principles, the chemical basis of life, cell structures and processes, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, evolutionary theories, and ecology.

Periods per week: 5 Unit of Credit: 1.0 Semesters: 2

SC1409 Honors Biology

This is a rigorous biology course designed for ninth grade students who have performed above average in middle math and science. This course is recommended for students who are planning to take higher level science courses throughout high school and are considering a career in a science related field. It includes lectures, class discussions and weekly hands-on laboratory inquires, which will develop observation, reasoning and critical thinking skills. Students will explore such topics as: biological principles, basic chemistry and biochemistry, cell structures and processes, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, evolutionary theories, and ecology.

Grade Recommendations: "B" or higher in Middle School Science and Algebra I. Additionally, PVAAS Biology projections will also be factored into the teacher recommendation process.

Periods per week:5 Unit of Credit:1.0 Semesters: 2

SC1426 (AP) Advanced Placement Biology

This collegiate level course is designed to prepare students for the AP Biology test and is equivalent to an introductory biology course offered to college freshmen intending to major in a biological science. This is a broadly based course that has been aligned with the Four Big Ideas of Biology as defined by the College Board. There are extensive studies of cellular and molecular biology as well as genetics, biochemistry, cellular energetics, evolution and environmental science. Laboratory work includes the use of various types of laboratory apparatus and instruments which are incorporated into exercises designed to complement and supplement lecture topics and enhance science practice skills. The designs of the labs are inquiry based when applicable. *Taking the AP test in May is an important component of this course and is highly encouraged.* AP classes require a summer work assignment. Students selecting this course must see the appropriate teacher before the end of the previous school year.

Students must have access to a computer with internet access to complete the required Mastering Biology assignments and study sessions.

AP Chemistry will provide a strong foundation for the biochemistry of the course and is **encouraged**.

Grade Recommendations: "B" or higher in Honors Biology and a "B" or higher in Honors Chemistry/Chemistry

Periods per week: 7.5 Unit of Credit: 1.5 Semesters: 2

SC102 Keystone Biology

This course is designed for the student that has not shown proficiency on the Keystone Biology Exam. Keystone Biology is tailored to address the needs of individual students based on student-specific test data. Content emphasis will be placed on the assessment anchors and eligible content identified as “needs” in the Individual Student Reports.

Periods per week: 5 Unit of Credit: 0.5 (elective) Semesters: 1 & 2

Chemistry Courses

SC1401 Physical Science

A comprehensive study of matter and energy will be presented. Students will develop an understanding of the basic principles of chemistry and physics and will be prepared for additional courses in science. This course is recommended for students who may not be ready to move on to Chemistry based on their prior work in Biology or may be taken to allow time for their Math skills to develop before entering a more rigorous Science course. Students are exposed to a broad spectrum of science study while developing critical thinking and problem-solving skills that are needed in our ever-changing modern technological world. A variety of instruction including some experiments and activities will be used to accommodate students with different learning styles.

Periods per week: 5 Unit of Credit: 1.0 Semesters: 2

SC1417 Chemistry

This introductory course investigates the fundamental concepts of chemistry. Topics include scientific measurement, properties of matter, atomic structure, and the periodic table, ionic and covalent bonding, chemical nomenclature, chemical reactions, thermochemistry, gas laws, solutions and acids and bases. Laboratory work is an integral part of the course and includes experiments that reinforce the concepts presented in lecture. Practical applications of chemistry to the student’s daily life are emphasized throughout the course.

Grade Recommendations: “C” or higher in Honors Biology / Biology

Periods per week: 5 Unit of Credit: 1.0 Semesters: 2

SC1415 Honors Chemistry

This course is designed to prepare students for the challenges of a college level chemistry course and is a prerequisite for AP Chemistry. It is recommended for those students planning to major in the sciences, mathematics or engineering. The topics covered include: matter, energy, measurements, problem solving, thermochemistry, atomic theory, quantum mechanics, periodic law, ionic and covalent bonding, chemical nomenclature, chemical reactions, solids, liquids, gases, acids and bases, and equilibrium. Learning is accomplished through lecture, reading, research, cooperative learning, laboratory experiments, and writing formal laboratory reports.

Grade Recommendations: “B” or higher in Honors Biology – “B” or higher in Algebra and Geometry and a proficient score on the Algebra Keystone Exam.

Periods per week: 5 Unit of Credit: 1.0 Semesters: 2

SC1427 (AP) Advanced Placement Chemistry

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. For some students, this course enables them to undertake, as a freshman, second-year work in the chemistry sequence at their institution. For other students, the AP Chemistry course fulfills the laboratory science requirement of their school and frees time for other courses. Therefore, this course is designed solely to prepare students to take the AP chemistry test. This course is recommended for those planning to enter the fields of pure and applied science, medicine or engineering. The topics covered are: advanced stoichiometry, gases, advanced bonding theory, quantum mechanics, solutions, chemical kinetics, chemical equilibrium, acids and bases, titrations, buffers, thermodynamics, electrochemistry, nuclear chemistry and organic chemistry. Learning is accomplished through lecture, laboratory work, demonstrations and the completion of AP style examinations. Taking the AP test in May is an important component of this course and is highly encouraged. **AP classes require a summer work assignment. Students selecting this course must see the appropriate teacher before the end of the previous school year.**

Grade Recommendations: “B or higher in Honors Chemistry “B or higher in Algebra II or Honors Algebra II”

Periods per week: 7.5 Unit of Credit: 1.5 Semesters: 2

Physics Courses

SC1423 Physics

Physics is designed for the student who does not plan to pursue a career in a science-related field but who desires to have a well-balanced education in science. The student will be exposed to concepts from various fields of study within physics all the while maintaining an approach of real-world application supported by mathematical analysis. While covering similar material, we will take a somewhat less rigorous pace than Academic Physics. This course is recommended for students who have passed Chemistry or excelled in Physical Science. With the application of mathematical analysis, it is recommended that students be concurrently taking Algebra II or a more advanced math to be successful in this course.

Periods per week: 5

Unit of Credit: 1.0

Semesters: 2

SC1425 Honors Physics

This course is available to juniors and seniors who plan to major in the sciences, mathematics or engineering. The topics of study are: systems of units, linear motion, projectile motion, vectors, torques, gravitation, work, energy, momentum, rotational motion, fluid mechanics, optics, waves, light, thermodynamics, nuclear physics (transmutation equations, half-life, and binding energy), electric charges, electrical and basic circuitry. The fundamentals will be emphasized through classroom discussions, lectures and labs. There is a strong emphasis on problem solving in Honors Physics. Equations are developed through lab experience, which will enhance the student's understanding of difficult concepts. Some advanced theories will be introduced for student enrichment. It is highly recommended that students have successfully completed, or have concurrent enrollment in Algebra II or a more advanced math.

Grade Recommendations: "A" Chemistry
"B" or higher in Honors Chemistry
"B" or higher in Previous Math Courses

Periods per week: 5

Unit of Credit: 1.0

Semesters: 2

SC1421 College Physics

This course is designed for those junior students who excel in mathematics and science and who plan on entering the fields of physics or engineering. This course is similar in content to Honors Physics, but covers the additional topics of electricity (electric potential, electric fields), magnetism, and quantum physics. Also the mathematical rigor of this course is much more difficult than Honors Physics. No previous physics course is required to enter into College Physics. This course is also available to those seniors who want to take a second year physics course but do not meet the parameters set forth in AP Physics C. It is highly recommended that students have successfully completed, or have concurrent enrollment in Honors Pre-Calculus or Calculus.

Pre-requisites: "A" in Honors Chemistry

Periods per week: 5

Unit of Credit: 1.0

Semesters: 2

SC1428 (AP) Advanced Placement Physics

This is a calculus based physics course intended for senior students who plan to enter the fields of engineering and/or physics. The course is designed for those students to earn college credit (4 or 8 credits) with the appropriate passing score on the AP Exam(s) as designated by the college or university of their choice. This course focuses on vectors, kinematics and dynamics in one and two dimensions as well as electricity and magnetism. This physics course integrates the mathematical concepts of limits, derivatives and integrals. Less time in AP Physics C is devoted to lab work since most of the lab work will have been done in Honors Physics the previous year. The remaining time will be spent on rigorous problem solving, conceptual development and preparation for the AP Exam in May. Taking the AP test in May is an important component of this course and is highly encouraged. Students can register for the AP Physics C Exam in Mechanics or Electricity and Magnetism. Some may choose to take both exams. It is highly recommended that students have successfully completed or have concurrent enrollment in Calculus. To be successful in this class, it is also recommended that students have performed above average in their previous physics course.

Prerequisites: "A" in Physics
"B" or higher in Honors Physics/College Physics
"A" in Trig/Pre-Calculus
"B" or higher in Honors Pre-Calculus

Periods per week: 7.5

Unit of Credit: 1.5

Semesters: 2

Additional Science Courses

SC1419 Environmental Science

This course will focus on society's impact on the environment, natural resources and energy use. Environmental science takes concepts from Biology, Chemistry, Ecology, Geology, and the Social sciences including economics, politics and ethics. The course topics include Environmental Problems; Energy Flow, Matter & Cycling in Ecosystems; Population Dynamics; Endangered Species; Water Resources and Water Quality; Waste Management; Climate Change; Renewable and Non Renewable Energy; Pesticides and Pollution; and Agriculture and Food Management. Class structure includes case studies and current events, environmental journals, group and individual projects, labs that simulate various environmental conditions, outside field sampling, and field trips. This course is recommended to a student with a background in biology and chemistry that wants to further their studies of environmental topics. This course will meet the third year science requirement needed for graduation for students who have completed Physical Science.

Periods per week: 5

Units of Credit: 1.0

Semesters: 2

SC1429 Anatomy and Physiology

This course is equivalent to a college level Introductory Anatomy & Physiology class. This course is typically offered to juniors and seniors. Sophomores who have successfully completed Honors Biology may elect to take this course. This course will allow students to study and understand both the structure and function of the human body simultaneously. In Anatomy and Physiology, students will learn about the basic organization of the human body, cells, tissues and various organ systems. Students will gain an understanding of the human body by studying the skeletal, muscular, nervous, cardiovascular, respiratory, digestive, and urinary systems. Students will acquire this knowledge through class discussions, hands-on laboratories and activities (including dissections), diagrams, videos and much more. Throughout the year, students will be provided the means to acquire knowledge about the human body, but it will be up to them to master these concepts by devoting the necessary time and effort. The course is recommended for students planning to take AP Biology. This course will count as a third science credit.

Grade Recommendations: "B" or higher in Honors Biology / Biology.

Period per week: 5

Units of Credit: 1.0

Semesters: 2

SC1405 Introduction to Astronomy

This course is offered to students who have completed the recommended science courses and want to further their study to what exists beyond the Earth's atmosphere. The course focuses on an "Earth-Out" approach to studying the universe, beginning with what students are familiar with (the rotation of the Earth, seasons, moon cycles, constellations) and extends outward to study our Sun, the other planets in our solar system, the Milky Way galaxy, and finally the universe as a whole. The student will gain a fundamental understanding of the universe and our place in it. We will also explore the possibility of occurrences of life in other parts of the universe.

It is important that students who are choosing to take Astronomy have a strong interest in science and have already completed biology and chemistry and have completed or are concurrently taking physics, as important themes from each will be incorporated into the astronomy class. As such, the course enrollment will be limited to Junior and Senior students. **PLEASE NOTE: As a 0.5 credit, semester course, Introduction to Astronomy is an elective, and does not fulfill the required three science credits.**

Period per week: 5

Units of Credit: 0.5

Semesters: 1

Social Studies

Social Studies

The goal of the Social Studies Curriculum is to prepare our students to take their place in American and World Society. Students are required to develop skills analogous to that of the historian—i.e. a problem solver. In addition, students obtain a knowledge and understanding of both American and World History. This combination of skills and understanding prepares Thomas Jefferson High School students to face an ever changing and complex global society.

Social Studies Sequence

CORE COURSES (Required for all students)

<i>Grade 9</i>	<i>Grade 10</i>	<i>Grade 11</i>	<i>Grade 12</i>
Civics and Government	World History	U.S. History	
Honors Civics and Government	AP World History	AP U.S. History	

Students have the option of taking one credit of Social Studies or Science during Grade 12. Students choosing to fulfill this credit in Social Studies may choose from electives to satisfy the one credit requirement. All Social Studies Electives are open to 10th - 12th grade students.

Social Studies Course Offerings

9th Grade

SS1203 Civics and Government

This course will provide students with an understanding of American civics and government. This course will allow students to engage in real world application and analysis of our political system. Topics addressed in the course include: civic responsibility, the Constitution, and the workings of the federal, state, and local levels of our government. Students will be evaluated through various means including examinations, homework, projects, worksheets, and in-class activities.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

SS1204 Honors Civics and Government

This course will provide students with an understanding of American civics and government in a rigorous academic setting. This advanced course will allow students to engage in deeper analysis of our political system as well as acquire the critical thinking skills necessary for success in future accelerated social studies courses. Topics addressed in the course include: civic responsibility, the Constitution, and the workings of the federal, state, and local levels of our government. Students will be evaluated through various means including examinations, homework, projects, worksheets, and in-class activities. Quality points are awarded according to the honors scale.

Prerequisite: PVAAS Literature projections will also be factored into the teacher recommendation process as well as students 8th grade grade in social studies.

Periods per week: 5

Unit of Credit: 1 with 0.5 Extra Quality Point

Semesters: 2

10th Grade

SS1205 World History

This course will provide students with a knowledge and understanding of world history and culture from 1450 AD to the present. Possible topics in this course will be as follows: the Renaissance, the Reformation, Colonization, Absolutism, the Enlightenment, the French Revolution, and the unification of Germany and Italy, the Industrial Revolution, the Growth of Western Democracies, Imperialism, New Global Patterns, Southeast Asia, the Middle East, Africa, and Latin America.

Map assignments, worksheets, quizzes, homework, class participation, projects, reports, and examinations will be used to evaluate student progress.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

SS1206 (AP) Advanced Placement World History

This course will cover an intensive study of world history for selected students in grade 10. Extensive collateral reading will be required. There will be an emphasis on a critical and interpretive approach to the study of world history from the ancient times to the contemporary era. Admission will be based on previous demonstration of qualifications leading to faculty recommendation. Quality points are awarded according to the advanced placement scale. This course will replace World History.

Map assignments, document analysis, quizzes, homework, class participation, projects, reports, and examinations will be used to evaluate student progress. Taking the AP test in May is an important component of this course and is highly encouraged.

Prerequisite: 10th Grade students must have 85% or higher in Honors Civics/Government, or 90% or higher in Civics and Government with 9th grade Social Studies teacher recommendation.

Periods per week: 5 Unit of Credit: 1 with 1 Extra Quality Point Semesters: 2

11th Grade

SS1209 United States History

This course will provide students with a study of U.S. History from the turn of the 19th Century to the present day. Possible topics in this course will be as follows: World War I, the Roaring Twenties, the Great Depression, and World War II, the Cold War, Social History, the Civil Rights Struggle, the Vietnam War Era, the Fall of Communism, and U.S. involvement in the Middle East. Map assignments, worksheets, quizzes, homework, class participation, projects, reports, and examinations will be used to evaluate student progress.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

SS1229 (AP) Advanced Placement U.S. History

This course will cover an intensive study of American history for selected students in grade 11. It focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting historical narrative) and an understanding of content learning objectives organized around seven themes, such as identity, people, and America in the world. Students will be expected to complete daily readings and develop a writing style that is demanded of a college history class. Admission will be based on previous demonstration of qualifications leading to faculty recommendation. Quality points are awarded according to the advanced placement scale. This course will replace U.S. History III and IV.

Timed in-class writing, simulations, projects, quizzes, homework, Socratic seminars, and intense examinations will be used to evaluate student progress. The overall course objectives are to take the AP test in May and to prepare students for success.

Prerequisite: 11th Grade students must have 85% or higher in Honors Civics/Government, or 80% or higher in AP World or 90% or higher in World History. All students must be Advanced or Proficient on their 10th grade English Keystone with a recommendation from 10th grade Social Studies teacher.

Periods per week: 5 Unit of Credit: 1 with 1 Extra-Quality Point Semesters: 2

Social Studies Electives

(Open to all 10th - 12th grade students)

SS1232 (AP CHS) Advanced Placement Psychology

Students will have the opportunity to take the AP exam **and/or** participate in the University of Pittsburgh College in the High School program. This is a college-level course offered at Thomas Jefferson High School in partnership with the University of Pittsburgh and students will have the opportunity to earn 3 college credits. The AP/CHS Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields (ex: psychological disorders, learning, sensation and perception, altered states of consciousness, etc) within psychology. They also learn about the ethics and methods psychologists use in their science and practice. The course will provide an overview of the diverse field of psychology, and an appreciation of the way that behavior and mental processes can be studied scientifically. Through a better understanding of human motivations and behaviors, we can better address the problems that plague society today.

Periods per week: 5 Unit of Credit: 1 with 1 Extra Quality Point Semesters: 1

SS1231 (AP CHS) Advanced Placement European History

This course will provide an intensive study of European history for selected seniors. Teacher recommendation is required. Students will have the opportunity to take the AP exam **or** participate in the Duquesne dual enrollment program. The Advanced Placement European History course is a college-level course offered at Thomas Jefferson High School in partnership with Duquesne University. The dual enrollment course is taught on-site at Thomas Jefferson High School. Students will have the opportunity to visit Duquesne University to participate in a college lecture, tour the campus, and earn 3 college credits. College credits are transferable to many other universities. Students must earn at least a “C” final average or better in order to be eligible for college credits. This survey course explores European history from 1450 to the present and introduces students to historical thinking skills: patterns of continuity and change over time, periodization, comparison, contextualization, historical argumentation, appropriate use of relevant historical evidence, interpretation, and synthesis. Students will be expected to conduct historical research, evaluate primary and secondary documents, and effectively synthesize information via oral and written communication.

Periods per Week: 5 Unit of Credit: 1 with 1 Extra quality point Semesters: 2

SS1220 Economics

This course is designed to introduce students to the theories behind economic decision making and the role that economics plays in our everyday lives. This hands-on approach to economics includes the following topics: decision making, comparing the economies of the world, the determination of prices in a free enterprise economy, the role of government in the United States economy, the stock market, and consumer economics. Upon completion of this course students will possess an enhanced understanding of their role in our economy. This understanding will be gained through cooperative learning activities, simulations, economic exercises, and other forms of assessment.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

SS1233 Law I

“Ignorance of the law is no excuse” is an often repeated phrase, but seriously, it is a binding principle that holds us all accountable for our daily acts. A little knowledge of the law can be quite useful and will help any student to know his/her legal rights and responsibilities as well as when legal counsel is needed. Topics include Introduction to the Legal Field, Criminal Law and Juvenile Justice, and Constitutional Law.

Worksheets, essays, quizzes, homework, class participation, projects, reports, and examinations will be used to evaluate student progress.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

SS1237 Law II - Trial Advocacy

The Law II course will build upon the Law course that is currently offered at the high school. Students will take their knowledge of criminal, civil, and constitutional law, as well as learn about the rules of procedure and evidence, in order to participate in mock trial situations. Students will understand and apply evidentiary rules to a variety of situations that mimic real-world situations faced by trial attorneys. Students will learn how to conduct examinations and cross-examinations of witnesses, and use supporting evidence to build a case or defend their position. Students will practice and refine their analytical skills. Major Topics to be Covered: Courtroom Rules of Evidence, Trial Procedure, Crafting a legal argument, participation in a mock trial.

Prerequisite: Law

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

SS1235 Psychology

The primary focus of psychology is the scientific study of the human mind and behavior. Through a better understanding of human motivations and behaviors, we can better address the problems that plague society today. Possible topics for study will be as follows: learning theories, thought and memory, sensation, perception altered states of consciousness, personality, psychological disorders, childhood and adolescence. Student progress will be evaluated using a variety of assessments.

11th/12th Grade Only Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

SS1236 Shaping the Modern World (CHS) College in High School

Shaping the Modern World is a current political issues, college in the high school course offered at Thomas Jefferson High School. Students will have the opportunity to earn 3 college credits through Duquesne University. This survey course will examine current and historical events in all regions of the world: Europe, Asia, Middle East, Africa, and South America. Global literacy, an understanding of how the world is interconnected, will be fostered through guest speakers, video conferences, and cultural experiences. A wide range of perspectives will be examined to encourage critical thinking and reading skills. Students will be expected to conduct historical research, evaluate primary and secondary sources, and effectively synthesize information via oral and written communication.

Periods per Week: 5 Unit of Credit: 1 with 1 Extra quality point Semesters: 2

Global Leadership Certificate

The Global Leadership Certificate is a multiyear program designed to prepare 10-12 grade students to be members and leaders in the global community and 21st century workplace. Through participation in the program, students cultivate their knowledge surrounding global issues; strengthen leadership potential; and network with peers and professionals. Students will participate in a wide range of globally focused experiences: video conferences, guest speakers, travel scholarships, field trips, and “global gatherings.” Through participation in the program, students are challenged to investigate the world, recognize various perspectives, communicate their ideas and bring awareness to action.

Certificate & Transcript

SS1234 Sociology

The primary function of the science of sociology is to study the rules that govern group living and the challenges facing society today. The tendency to form groups lies at the very foundation of human society. If we want to know why people act as they do, we must understand how the grouping process works. Most human behavior tends to be social in nature, so the subject matter ranges from the development of personality, to family interactions, to large group interactions made possible through the internet. Possible topics of study will be as follows: deviance and social control, social stratification, treatment of minority groups, the impact of society on personality, adolescence and the differences and similarities between cultures. Student progress will be evaluated using a variety of assessments.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

Business Information and Technology

Business and Information Technology

The West Jefferson Hills School District's computer curriculum is based on the basic belief that ALL students should become equipped with the knowledge and technological skills necessary for being successful in post-secondary education and employment. Our software courses provide students with the knowledge and skills necessary to operate a personal computer and utilize the associated software. Our programming courses provide students with the knowledge and skills necessary to write, modify, and troubleshoot computer programs.

Two courses fulfill the Computer Credit Requirement:

- Business Computer Fundamentals
- Python Programming

The West Jefferson Hills School District business education curriculum is based on two basic beliefs. The first is based on the belief that every student needs to develop skills necessary to become an educated consumer and citizen while strengthening their basic reading, writing, mathematical, and interpersonal skills. The second is that student should become equipped with the knowledge and technological skills necessary for being successful in post-secondary education and employment in a business-related field.

In order to carry out our philosophy, our courses teach the following basic skills:

1. Provide students with the knowledge and skills necessary to operate a personal computer and utilize the associated software.
2. Facilitate and encourage time management, leadership, and personal development.
3. Encourage intelligent consumer-related decisions.
4. Recognize the importance of entrepreneurship in today's global society.
5. Develop interpersonal and intrapersonal skills necessary to function effectively in life.
6. Promote the knowledge and skills necessary to obtain and maintain entry-level employment in business.
7. Foster a desire for continual learning, study, and growth in a business field.
8. Manage personal and business affairs independently.

Business and IT Course Offerings

BU1350 CHS Accounting I

This college in the high school course, offered at Thomas Jefferson High School, is essential for students who plan to pursue business as a career. Accounting I provides a thorough background in the basic accounting procedures used to operate a business. Students who desire preparation for any business-related career will gain the knowledge necessary to process and interpret financial data. A required part of this course includes a simulation that is completed at the end of the course which includes all accounting work for a merchandising business for an entire month. ***Students will have the opportunity to earn 3 college credits through CCAC.***

Prerequisite: Must be in grade 10, 11, or 12

Periods per week: 5 Unit of Credit: 1 Semesters: 2

BU1351 CHS Accounting II

This college in the high school course, offered at Thomas Jefferson High School, is for students with determined career objectives in business and/or the accounting profession. With an emphasis on corporate accounting, it is designed to complement and expand the student's ability to understand accounting procedures. Topics such as special journals, inventory control, methods of depreciation, accounting for notes payables/receivables, and accrued interest and expenses will be introduced. An introduction to automated accounting procedures is included. ***Students will have the opportunity to earn 4 college credits through CCAC.***

Prerequisite: Accounting 1 with a final average grade of C or better.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

BU1352 Accounting III

This course is offered to senior students who are seriously planning to pursue higher education with an Accounting or business degree. Topics covered will include departmentalized accounting, corporate accounting, cost accounting, as well as other accounting systems. Students will complete several accounting simulations throughout the year with an emphasis being placed on the ability to work independently. Portions of this course will be taught using Automated Accounting procedures.

Prerequisite: Accounting II with a final average grade of C or better.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

BU1359 (AP) Advanced Placement Computer Science

This course is designed to allow students the opportunity to learn a structured programming language. Class work will consist of written assignments, problem solving, examinations and programs written in Java programming language. An extra quality point is awarded for this course. Taking the AP Computer Science test in May is an important component of this course and is highly encouraged.

Prerequisites: Successful completion of C/C++ Programming for Engineering & Artificial Intelligence with a final average grade of C or better AND Students selecting AP courses must have a recommendation from the subject department head.

Periods per week: 5 Unit of Credit: 011 Semesters: 2

BU1365 C/C++ Programming for Engineering & Artificial Intelligence

This course is designed to teach programming using structured technique and for any student interested in entering the engineering, artificial intelligence, programming, robotics, and other related fields. Class work will consist of lab assignments, problem solving, programs and examinations written in C/C++ language. The course will use the Object-Oriented approach to programming and will introduce the students to engineering related problems and the C/C++ programming language.

This course is a prerequisite for the AP Computer Science course.

Prerequisites: Successful completion of Python Programming with a C and/or teacher recommendation.

Periods per week: 5 Units of Credit: 0.5 Semesters: 1

BU1360 CHS Incubatoredu – Entrepreneurship

This course is designed to get students excited about becoming true entrepreneurs by giving them the opportunity to create and fully develop their own product or service. Real-world entrepreneurs and business experts serve as coaches and mentors guiding student teams through the process of ideation, market research, and business plan development. **Students will be placed in teams and** will learn about marketing, accounting, as well as the legal aspects of starting a business. They are given access to a network of professionals to further develop skills such as teamwork, problem solving, presentation, and communication for college and career readiness. Pitch Week helps to ignite the entrepreneurial spirit by putting student teams in front of actual investors to pitch their innovative idea and win funding, turning their wishful thinking into a reality.

This course is open to Juniors and Seniors. (Sophomores may be considered after juniors and seniors have been placed). **Students must meet the criteria posted in Google Classroom and will be chosen on a competitive basis.** Registering for this class does not guarantee selection.

Periods per Week: 5 Unit of Credit: 1 Semesters: 2

BU1361 Cyber Forensics

This course will teach the students about the many different components of the computer as well as how data flows and is stored on the computer. Students will also learn the different computer operating systems (Windows, Linux, and IOS etc...). Students will also learn the different viruses that exist and ways to protect the computer from them. On the Forensic portion of the course, students will be able to trace and retrieve lost data and write up court case documents to back up their findings. Students will also compete in several nationwide contest of Capture the Flag - a computer hacking competition and Cyber Forensic competition as well.

Prerequisite: Must be in grades 10, 11, or 12. and successfully completed Python Programming with a C.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

BU1357 Exploratory Business

Open to 9th or 10th grade students only, this semester course will introduce students to the many aspects of business, serving as a background for other business courses the students may elect in high school and in college. This course will prepare students for future employment while they gain the knowledge, skills, and aptitudes necessary to secure and succeed in their first job and manage their personal finances as well as help them to become an educated consumer.

Prerequisite: Must be in grade 9 or 10

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

BU1363 Marketing

This course is designed to expose students to the exciting and multi-faceted world of marketing. Students will learn about branding, advertising, promotion, selling, product development, pricing, and marketing research. This class is the perfect head start for any student interested in majoring in business or becoming an entrepreneur.

Prerequisite: Must be in grades 10, 11 or 12

Periods per week: 5 Units of Credit: 0.5 Semesters: 1

BU1364 Personal Finance

This course provides students with a foundation for becoming educated consumers and successfully maintaining their own financial lives. Practical application is made to simulate lifelike situations. Students will be engaged in personal money matters such as maintaining checking and savings accounts, loans and credit, identity theft, insurance, taxes and investments. This course is a must for any student looking to understand and control his or her own financial destiny.

Prerequisite: Must be in grade 10, 11, or 12

Periods per week: 5 Unit of Credit: 1 Semesters: 2

BU1356 Python Programming - Introduction to Programming

This is an introductory course for programming, which fulfills the computer requirement for graduation. Using problem-solving logic techniques, students will be able to code and troubleshoot a program, design a Python application, and develop programs for simple gaming. Python will emphasize Object-Oriented Programming design.

Prerequisite: Recommendation of strong math skills

Periods per Week: 5 Unit of Credit: 0.5 Semesters: 1

BU1354 Retail Management

This course is for the *serious* business student who plans to pursue a career in entrepreneurship, management, marketing, or sales. The students will receive real-world experience through the daily operations **and management** of the school store, *The Jaguar Den*, **the school coffee shop**, *Coffee Tree Roasters*, as well as the online store, which specializes in providing TJ apparel, accessories, and novelties to the entire West Jefferson Hills community. The students will be responsible for learning every aspect of **operating all three businesses**. The student will be responsible for product design and development, purchasing merchandise, **scheduling**, inventory control, marketing, publicity, bookkeeping, website management, etc. Students may take this course more than once. **This course will require students to operate the school store outside of regular school hours.**

Prerequisite: A minimum of two business courses completed from the following list (Accounting I, Accounting II, Personal Finance, Incubator, Exploratory Business, Marketing). **Enrollment for this course is capped at eight students. Students interested in enrolling in this class are required to complete a job application and will go through a typical interview process for employment.**

Period per week: 5 Unit of Credit: 1 Semesters: 2

BU1353 Business Computer Fundamentals

This course introduces the students to advanced capabilities of word processing and spreadsheet software. In word processing, the student will learn advanced formatting techniques such as those used in research papers; with spreadsheets the student will learn to build formulas and create attractive charts. Object linking and embedding will be used to integrate the software applications. This course fulfills the computer requirement for graduation.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

BU1366 Apple Swift - XCoding IOS APP, Augmented and Virtual Reality Programs

This is a programming course designed to teach students the basic concepts of computer programming using ARKit software. Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. The course will include designing, coding, debugging, testing, and documenting programs using a high level programming language. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging.

Prerequisite: Successful completion of Python Programming with a B or higher

Periods per week: 5 Units of Credit: 0.5 Semesters: 1

Technology Education

Technology Education

Technology is the application of tools, materials, processes and systems used to solve problems and extend human capabilities. Effective technology education combines knowledge of content, process, and skills. Technology education offers unique opportunities that apply numerous academic concepts through practical, hands-on application. Students who elect technology education courses will become technologically literate and be prepared to apply those skills in the technology driven world we live in.

TE1861 Architecture

Architecture is a semester elective course for students in grades 9 thru 12. Students will study architectural design and animation using Autodesk Revit Architecture. Revit Architecture is building design software that helps you capture and analyze concepts, while maintaining your vision through design, documentation, and construction.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

TE1857 Construction Technology

Construction Technology is a one semester elective for students in grades 9 thru 12. It is designed toward developing the necessary knowledge and skills needed to maintain one's home. Students will study current issues in construction, specifically in the areas of electric, plumbing, framing, and finish carpentry.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

TE1867 Engineering

Engineering is a semester elective course for students in grades 9 thru 12 interested in 2D/3D design and 3D printing. Students will study mechanical design and simulation using AutoCad, Autodesk Inventor, and 3D printing/scanning software. This software enables you to produce more accurate models to design, visualize and simulate your ideas.

Periods per week: 5 Units of Credit 0.5 Semesters: 1

TE1869 Robotics/Drones

Robotics is a semester elective for students in grades 9 thru 12. This is an interdisciplinary course in which students combine science, technology, and math to design and create a robotic device that performs a specific function. The Robotics class is for creative students interested in working hands-on. Students will use tools, machines, and computers to develop the robots.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

TE1866 Tech Lab

In grades 9-12 students will explore the growing field of manufacturing and technology. From the previous years at the middle school, the students will have an understanding of how to solve problems using the engineering design process, and they will apply that knowledge in this course. Students will learn how to use all equipment and tools in the Tech LAB. Students will learn CNC programming, Laser Engraving technology, uv printing, vinyl cutting/printing, and how to properly use tools and machines in the shop. By the end of this course, students will have the ability to solve technological problems using modern equipment and processes that will have a positive impact on their future careers. Students can take this course multiple times and build on previous years' knowledge to gain a deeper understanding of technologies.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

TE1852 Theater Construction and Technology

Theater Production is a semester course for students in grades 9-12. During this course students will have the opportunity to learn the design and build process of a theater production. Students will work hands-on to layout and create and build set pieces, use and design lighting to highlight areas and create scenes. They will also be introduced to the basics of the sound board. Students can take this course multiple times and build on previous years' knowledge to gain a deeper understanding of technologies.

Periods per week: 5 Unit of Credit 0.5 Semesters 1

TE1870 Introduction to TJTV

Thomas Jefferson Television is a semester elective course for students in grades 9 through 12. It is a hands-on course set around the creation of daily television announcements and productions. Students will be involved in announcing, scripting, producing and interviewing, directing, shooting and editing.

Periods per week: 5

Unit of Credit 0.5

Semesters 1

TE1871 Advanced TJTV

Thomas Jefferson Television is a semester elective course for students in grades 10 through 12. It is a hands-on course set around the creation of daily television announcements and productions. Students will be involved in announcing, scripting, producing and interviewing, directing, shooting and editing. Productions will require students to attend and report on various activities after school hours. Students can take this course multiple times and build on previous years' knowledge to gain a deeper understanding of technologies.

Periods per week: 5

Unit of Credit 0.5

Semesters 1

TE1853 Commercial Design

The Commercial Design class bridges the gap between the Art & Technology classes. In this semester long course, students will implement design in manufacturing and create images and graphics used for various commercial applications. These designs will apply to sports, school, community and local business. This class will be offered to grades 11 and 12 and it is suggested that students take one or more of the Graphic Design, Photo/Video or TJTV courses prior to enrollment.

Periods per week: 5

Unit of Credit 0.5

Semesters 1

World Language

World Languages

The West Jefferson Hills World Language Department recognizes the following beliefs in our curriculum that reflect the ever changing world. They include:

- Given the necessary level of support and opportunity, all students can learn a language.
- Learning a language requires active participation.
- Language instruction must be relevant, student centered, and process driven to accommodate the needs of a changing world.
- Learning is a collaborative responsibility among students, educators, parents and community.

The World Language Department will encourage students to become motivated enthusiastic learners in all phases of instruction. This will be accomplished by incorporating:

- A communicative curriculum.,
- Contextualized learning.
- Learner centered instruction.
- Cooperative learning.
- A developmental approach to sentence structure.
- A contextualized approach to vocabulary.
- An integrated participatory approach to culture.

French Courses

WL1508 French I

French I is an introductory, yet fast-paced course designed to give students the basic tools of language learning. Students will be introduced to the language by integrating vocabulary, sentence structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of novice low to novice high as identified in the foreign language proficiency guidelines established by the American Council on the Teaching of Foreign Languages (ACTFL).

Periods per week: 5

Unit of Credit: 1

Semesters: 2

WL1510 French II

French II builds cumulatively on the knowledge learned in French I. Students continue to develop their familiarity of the language by integrating vocabulary, sentence structure, and culture into real world scenarios. Students are expected to move from a proficiency level of novice high to intermediate low as identified in the foreign language proficiency guidelines established by ACTFL.

Prerequisite: French I

Periods per week: 5

Unit of Credit: 1

Semesters: 2

WL1512 French III

French III builds cumulatively on the knowledge learned in French I and II. Students continue their language study through more complex integration of vocabulary, sentence structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate low to intermediate mid as identified in the foreign language proficiency guidelines established by ACTFL.

Prerequisite: Completing French II with a C

Periods per week: 5

Unit of Credit: 1

Semesters: 2

WL1513 CHS French III

CHS French III is a rigorous college in the high school course that prepares students for AP/CHS French. Students continue their language study through more complex integration of vocabulary, sentence structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate low to intermediate mid as identified in the foreign language proficiency guidelines established by ACTFL. Students will have the opportunity to earn 3 college credits from the University of Pittsburgh.

Prerequisite: Completing French II with a B and teacher recommendation.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

WL1514 AP CHS French

AP/CHS French is a rigorous, advanced placement, college in the high school course that prepares students for the AP French Language and Culture Exam. Students will practice listening, reading, writing and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate mid to intermediate high/advanced low as identified in the foreign language proficiency guidelines established by ACTFL. Students will have the opportunity to earn 3 college credits through Seton Hill University.

Prerequisite: Completing French III with an A and teacher recommendation or CHS French III with a B and teacher recommendation.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

Spanish Courses

WL1516 Spanish I

Spanish I is an introductory, yet fast-paced course designed to give students the basic tools of language learning. Students will be introduced to the language by integrating vocabulary, structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of novice low to novice high as identified in the foreign language proficiency guidelines established by the American Council on the Teaching of Foreign Languages (ACTFL).

Periods per week: 5 Unit of Credit: 1 Semesters: 2

WL1518 Spanish II

Spanish II builds cumulatively on the knowledge learned in Spanish I. Students continue to develop their familiarity of the language by integrating vocabulary, structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of novice high to intermediate low as identified in the foreign language proficiency guidelines established by ACTFL.

Prerequisite: Spanish I

Periods per week: 5 Unit of Credit: 1 Semesters: 2

WL1520 Spanish III

Spanish III builds cumulatively on the knowledge learned in Spanish I and II. Students continue their language study through more complex integration of vocabulary, sentence structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate low to intermediate mid as identified in the foreign language proficiency guidelines established by ACTFL.

Prerequisite: Completing Spanish II with a C.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

WL1521 CHS Spanish III

CHS Spanish III is a rigorous college in the high school course that prepares students for AP/CHS Spanish. Students continue their language study through more complex integration of vocabulary, sentence structure, and culture into real world scenarios. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate low to intermediate mid as identified in the foreign language proficiency guidelines established by ACTFL. Students will have the opportunity to earn 3 college credits from the University of Pittsburgh.

Prerequisite: Completing Spanish II with a B and teacher recommendation.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

WL1522 AP CHS Spanish

AP/CHS Spanish is a rigorous, advanced placement, college in the high school course that prepares students for the AP Spanish Language and Culture Exam. Students will practice listening, reading, writing, and speaking with authentic texts, video, and audio resources using the three modes of communication: interpersonal speaking and writing, presentational speaking and writing, and interpretive listening and reading. Students are expected to move from a proficiency level of intermediate mid to intermediate high/advanced low as identified in the foreign language proficiency guidelines established by ACTFL. Students will have the opportunity to earn 3 college credits through Seton Hill University.

Prerequisite: Completing Spanish III with an A and teacher recommendation or CHS Spanish III with a B and teacher recommendation.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

WL1524 Hispanic Culture and Spanish Conversation

This course delves into both cultural and historical concepts from various Spanish-speaking countries that relate to the modern world. Additionally, students will engage in interpersonal speaking with the goal of being able to hold a spontaneous conversation about simple topics as well as be able to travel abroad.

Prerequisite: Completing Spanish II with a B.

Periods per week: 2-3

Unit of Credit: .5

Semesters: 2

Family Consumer Science

Family and Consumer Science

Family and Consumer Sciences has its focus on preparing individuals to become independent, to assume family roles, to contribute to the good of the community and society, to balance work and family, and to transfer personal skills to the workplace.

FC1804 Adult Living

This course prepares students to live as responsible, independent individuals. Students will gain knowledge of living on their own and how to survive in the world of adulthood. Topics include: values, decision making, skills, goals, self-awareness, communication skills, families, and the individual's roles and responsibilities within the family and community, money management, and basic kitchen skills. Emphasis will be placed on the student becoming an independent individual.

Prerequisite: Must be in grade 11 or 12

Periods per week: 5

Unit of Credit: .5

Semesters: 1

FC1802 Child Development Theory

This course is required for students who are interested in taking Nursery School. Students are provided with an understanding of the aspects of human growth and development. The magic world of the developing child from conception to age four is covered in this course. Parenting skills are developed as positive guidance techniques and child related issues are studied. To prepare the student for Nursery School, instruction is given regarding standards involved with childcare, employment skills needed to work with young children, how to maintain a healthy environment for children, developmentally appropriate practices, learning activities and observation techniques in working with groups of young children are included.

Prerequisite: For grades 10, 11, or 12

Periods per week: 5

Unit of Credit: .5

Semesters: 1

FC1803 Nursery School

This course is available to seniors only or to Juniors who have taken and passed Child Development I-Theory. Theories of development are covered in the first four weeks. Also, during this time, learning how to operate a preschool is studied. For the next twelve weeks, children, ages two and a half to four, will come to the high school three days a week. The students will plan, prepare, implement and assess activities for the children. This course is good for anyone interested in working with children as a career.

- Students may elect to take more than 1 semester, however priority will be given to those who have not yet had the opportunity.

Prerequisite:

1. Successful Completion of Child Development Theory
2. The following three PA Child Protective Services Law (CPSL) Clearances:
 - Act 34 Criminal History Record Check
 - Act 151 Child Abuse History Clearance
 - Act 114 FBI Fingerprint Background Check

Periods per week: 5

Unit of Credit: .5

Semesters: 1

FC1811 Fabric, Fashion, and Design I

This is a one semester course that is offered to students in their 9th, 10th, 11th, or 12th year. This course is designed for the beginner sewer. Basic seam finishes and beginning textiles will be covered. The student will be provided with the opportunity to apply principles of art and design to fashion, while learning the basic techniques of clothing construction. The student must complete three projects. All materials and supplies are to be provided by the student.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

FC1812 Advanced Fabric, Fashion, and Design II

This course is offered to students in 10th, 11th, or 12th grade who have successfully completed Fabric Fashion and Design Level I. The student will learn and apply more difficult construction and design skills, how to use the serger, work with more difficult fabrics, and other more advanced sewing technology. Each time the student must complete three projects based on his/her skill level. All materials and supplies are to be provided by the student.

Prerequisite: For grades 10, 11, 12 who have passed Level I.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

FC1813 Advanced Fabric, Fashion, and Design III

This course is offered to students in 10th, 11th, or 12th grade who have successfully completed Fabric Fashion and Design Level I and II. The student will learn and apply more difficult construction and design skills, how to use the serger, work with more difficult fabrics, and other more advanced sewing technology. A student may take this course once. Students enrolled will complete projects that are more advanced than those on Level II. Each time the student must complete three projects based on his/her skill level. All materials and supplies are to be provided by the student.

Prerequisite: For grades 10, 11, 12 who have passed Level I and/or II

Periods per week: 5 Unit of Credit: .5 Semesters: 1

FC1805 Foods and Nutrition

It's not just a cooking and eating course!! This course begins with the study of nutrition and diet analysis, allowing the student to make decisions to improve and maintain a healthy lifestyle. Food purchasing, label reading, and setting up a kitchen are included. This is followed by planning and preparing foods in a group. Throughout the semester, wise use of time, energy, money and equipment is emphasized while learning to apply healthy eating styles.

Prerequisite: Must be in grades 10, 11, or 12

Periods per week: 5 Unit of Credit: .5 Semesters: 1

FC1806 Interior Design

The Interior Design course emphasizes the use of art principles in decorating a home. Students learn housing styles, floor plans, and furniture style and arrangement. These principles are applied to a major project. Creativity through decorating for less projects finishes out the course. Students must supply all of their own materials.

Prerequisite: Must be in grades 10, 11, or 12

Periods per week: 5 Unit of Credit: .5 Semesters: 1

FC1801 Introduction to Family and Consumer Science

It's not just cooking and sewing! This is a course for **9th graders only**. It is designed to introduce the student to semester courses offered in their 10th, 11th, or 12th grade year. Learning to make healthy choices in lifestyle and nutrition, to be a contributing member of family and community, to make smarter consumer decisions, and career exploration are the major areas covered. Hands on projects are part of the course. The student must supply all materials for the projects.

Prerequisite: 9th graders only

Periods per week: 5 Unit of Credit: .5 Semesters: 1

Fine Arts

Fine Arts

Thomas Jefferson High School intends to make the values of the fine arts visible to our students. The fine arts, involving music and the visual arts, helps prepare students for further education in careers involving creativity, and it brings exhilaration to the whole learning process. Students become interested in learning, adding new dimensions to what they already know, enhancing knowledge through creative interpretation. Through active participation in various forms of self-expression, the student is continuously challenged to develop intelligent behavior and social skills that affect their overall lives in society and culture. Students learn to adapt and respect others' ways of thinking, working, and expression. Significant opportunities are provided for students to progressively broaden views of the world. Fine arts education enables students to develop the self-esteem, individuality and motivation necessary for success in all facets of life. The pleasure and meaning of learning becomes real, tangible and powerful through the fine arts.

Arts and Crafts Course Offerings

All arts and crafts courses meet (5) five days per week for one semester. (With the exception of AP Studio Art, which is ALL YEAR LONG and 1 FULL CREDIT) One-half (1/2) credit is awarded for each of the other courses. Since a variety of experiences in the Fine Arts is encouraged, no student will be permitted to repeat a course. The policy of the Art Department is that a student selects a maximum of **two** art courses per semester unless departmental approval is obtained for a student to take additional courses. Students with no previous art classes in high school are encouraged to select ART I first, but may also enroll in PHOTO/VIDEO, 3-D ART STUDIO, CERAMICS & MIXED MEDIA. Students with exceptional ability demonstrated through a portfolio may progress to a higher sequence without the preliminary requirements. However, students may not regress and acquire credits for lower sequence courses. Please refer to page 25 for information on sequential subjects.

AR1910 Studio Art I

The Art I course is designed for the beginning art student, especially those wishing to pursue upper level art courses. Students are introduced to basic art media and techniques with an emphasis on the Elements of Art, Principles, Design and Composition. Students will also become familiar with the use of art criticism and aesthetics in the art room and as part of the creative process.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

AR 1916 Studio Art II

Art II is an intermediate level art class designed for the motivated art student wishing to expand on skills and knowledge introduced in Art I. The course continues to build on the use of Elements of Art, Principles of Design and Composition through a diverse breadth of artmaking processes and materials. Art criticism and aesthetics, talking and writing about artwork, are important components of the course.

Prerequisites: Art I

May be taken more than once.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

AR1918 AP Art: Drawing Portfolio

AP Drawing is a year long, advanced placement college-level drawing course for the serious art student. Students partake in an inquiry based study of art materials, processes and ideas done over time, known as a sustained investigation. This inquiry leads students to ultimately create a portfolio of no less than 15 works, intended for submission to the college board as part of the AP Art Exam. Students passing the exam may earn college credit. Hands on studio experiences, writing activities and talking about art, are integral parts of the course.

Prerequisites: Studio Art I and Studio Art II

Teacher Approval needed under special circumstances.

Period per week: 5

Unit of Credit: 1

Semesters: 2

AR1902 Basic Graphic Design

The course will cover a whirlwind of basic design techniques providing proficiency in both hand and computer generated imagery as well as Product Advertising. Elements of line, type, shape and texture will embrace principles of balance, contrast, unity, color, and value. Throughout the course, students will learn to use the Adobe Photoshop program. This course is a definitive college/career option for many students and utilizes the school's classroom technology resources.

Prerequisites: Must be in grade 10, 11, or 12

Periods per week: 5 Unit of Credit: .5 Semesters: 1

AR1903 Ceramics Studio I

The Ceramics course is for students who have an interest in working with clay. Hand-forming techniques such as pinch pots, coil pots and slab construction will be explored initially, after which the student will attempt to acquire some proficiency on the potter's wheel. Clay modeling and sculpture will also be explored along with glazing and decorating techniques.

Prerequisites: NONE

Periods per week: 5 Unit of Credit: .5 Semesters: 1

AR1906 Advanced Ceramics:

This course is designed for students that wish to further expand and build upon their experience in Ceramics. Students will be presented with a series of learning targets that they will be expected to meet in order to fulfill the course requirements. These targets will allow students to develop their own personal expression with ceramic materials.

Prerequisites: Must have taken Ceramics Studio I

Can be taken more than once

Periods per week: 5 Unit of Credit: .5 Semesters: 1

AR1914 Creative Studio Media

Introductory course for recording and composition taught to students at the 11th & 12th grade levels. The emphasis is to harness the creative process through performance, documentation and technical know-how. Students will be able to set up a recording session (both in-studio and remote locations) to capture a variety of sonic arrangements, ensembles, voices and solo instruments. Basic tracking, editing, overdubbing and mixing will be covered. They will learn about the correct uses of different microphones, preamps and amplifiers. This course will introduce students to the use of Pro-Tools and Adobe Audition recording programs.

Prerequisites: GRADES 11 & 12 ONLY. It is strongly recommended that students with musical interests or backgrounds are considered.

Periods per week: 5 Unit of Credit: 0.5 Semesters: 1

AR1901 Mixed Media Arts

This course is open to students who wish to challenge themselves with a variety of mixed materials that incorporate a creative individual approach. Basic techniques in Printmaking, Sculpture and Application provide a variety of lessons in both 2-D and 3-D concepts. While not an advanced Art study, the course provides expectations to challenge beyond basic requirements. A variety of subject matter and media is presented to provide meaningful experiences for the student. This class along with General Art will serve as a foundation for the student who elects more advanced classes in the future.

Prerequisites: Offered to grades 10, 11, 12.

Course may be taken more than once.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

AR1908 Photography/Video Production

This course is intended to be a basic guide to photography and video production. Photography starts at the beginning and assumes the student has no prior understanding of the subject. Photography follows all the necessary steps from the beginning of picture-taking through digital manipulation and presentation. Students will also learn basic video production, editing and titling.

Periods per week: 5 Unit of Credit: .5 Semesters: 1

AR1917 3-D Art Studio:

3-D Art introduces students to three dimensional art concepts, mediums and methods. Course projects and materials are mostly sculptural in nature. However, some work will require 2-D drawing representing three dimensional ideas. Writing and talking about art and artworks are integral parts of the course.

Can be taken more than once

Periods per week: 5

Unit of Credit: .5

Semesters: 1

Music

Music Course Offerings

MU1954 Music Theory and History

This course is offered as an elective for one semester for students in grades 10, 11, and 12. The purpose of the course is to develop an understanding of the fundamentals of music theory and history. Ear training, part writing, analysis, form, and musical time periods are all covered. This class is intended to prepare a student for study in the field of music, and a fundamental knowledge of the elements of music is a prerequisite for the course. Students applying for this course must meet with the music staff to determine whether their background is adequate for successful completion of the course.

Prerequisites: Open to 10th, 11th, and 12th Graders, AND Music teacher recommendation is required.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

MU1955 Music Theory II

This course is offered as an elective for one semester for students in grades 10, 11, and 12. The purpose of the course is to develop an understanding of the fundamentals of music theory and history. Ear training, part writing, analysis, form, and musical time periods are all covered. This class is intended to prepare a student for study in the field of music, and a fundamental knowledge of the elements of music is a prerequisite for the course. Students applying for this course must meet with the music staff to determine whether their background is adequate for successful completion of the course.

Prerequisites: Successful completion of Music Theory and History, AND music teacher recommendation.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

Instrumental Music Program

The Instrumental Music Program is a one (1) year course. Students scheduling for Band are to register for Marching Band for the first semester, then either Marching/Concert Band or Marching/Symphonic Band for the second semester. Students must participate in both semesters to be part of the Thomas Jefferson Instrumental Music Program. Junior High Band students must fulfill all the requirements of the Pleasant Hills Middle School Instrumental Program to be eligible to participate in the Thomas Jefferson High Instrumental Music Program. Students not participating in the West Jefferson Hills School District Instrumental Music Program must successfully pass the audition requirements to be eligible to enter or re-enter the Thomas Jefferson High School Instrumental Music Program. Students will also be eligible to participate in the Pennsylvania Music Educator Association (PMEA) sanctioned events (Honors Band, District Band, Regional Band, All-State Band, District Jazz Bands All State Jazz Band, and Band Adjudication Festivals). All criteria and standards are given below for each performing group. *Students not enrolled in the Thomas Jefferson Instrumental Music program will not be eligible to participate in a PMEA sanction event.*

Marching Band

The Thomas Jefferson High School Marching Band consists of all woodwind, brass, and percussion from the Concert and Symphonic Bands, color guard, and majorette members in grades 9-12. Registration for Marching Band begins in the spring. Recruitment activities include a student presentation at Pleasant Hills Middle School, a director's presentation at the middle school, and an informational parent meeting in April.

Each student will receive a handbook that contains all the rules and regulations for marching band, including attendance requirements and a schedule of rehearsals and performances. The Marching Band performs at all varsity football games, community events, and at parades and festivals throughout the region.

The Thomas Jefferson High School Marching Band is an educational arts program dedicated to providing the youth of our high school and community with the means to develop life skills, musical skills, performance skills, build character and foster teamwork while cultivating the talents of tomorrow's leaders.

MU1941 Honors Symphonic/Marching Band

The Honors Symphonic/ Marching Band is created for the advanced woodwind, brass, and percussion student in grades 10, 11 and 12. The objective of this band is to strive for the highest possible achievement through the performance of advanced band literature written for the modern band as well as orchestral transcriptions. Students are expected to have a highly developed sense of tone, intonation, rhythm, harmony and articulation. Students will also study advanced theoretical and technical concepts appropriate to their individual instrument. The Honors Symphonic/ Marching Band students will participate in both the symphonic and marching band settings. Student's participation in school performance as well as outside of school performances are all required and mandatory. In addition, all after-school rehearsals may also be required. Musicians wanting to participate in PMEA or MENC Honors Festivals must be enrolled in the class. The Honors Symphonic/Marching Band pace is accelerated and evaluated at higher standards, therefore students will be awarded quality points under the honors scale.

Periods per Week: 5

Unit of Credit: 1

Semesters: 2

MU1951 Marching/Concert Band

The Marching/Concert Band is opened to students in grades 9, 10, 11 & 12 enrolled in the Thomas Jefferson Music Program having completed instrumental band through the eighth grade or its equivalent. The objective of this Band is to strive for the highest possible musical achievement through the performance of intermediate to advance band literature. The band will be introduced to and develop new musical techniques through a wide range of musical styles and composers by way of studying a variety of classical band works, orchestral transcriptions, marches, and popular music. The Marching/Concert Band typically performs two concerts a year and at Graduation and commencement ceremonies. Other festivals and community performances may be added from year to year at the discretion of the director. The Marching/Concert Band begins to rehearse at the conclusion of Marching Band season.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MU1942 Jazz Ensemble

The Jazz Ensembles are groups of approximately 20 instrumentalists who are chosen by audition in the spring of each school year. Students are placed in either Jazz Ensemble I or II based on their performance and knowledge in the jazz idiom. There are two bands that meet during 5th and 6th period (Jazz I meets period 6 and Jazz II meets period 5) and after school at the conclusion of the Marching Band season. Advanced arrangements in the various jazz styles are studied and played. An introduction to improvisation and solo playing is also provided. The bands perform at several festivals, concerts, and community events throughout the area. Students are made aware of the attendance requirements upon auditioning for the ensembles. Students wishing to participate in the Jazz Ensembles must also be enrolled in the Symphonic/Marching Band or Symphonic/Concert Band for the academic school year.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MU1959 Strings Ensemble

The String Ensemble is a group made of musicians who play primarily but are not restricted to stringed instruments. (i.e. violin, viola, cello, bass, guitar, etc, etc.). The goal of this course is to enrich the skills and awareness of each student, to offer a venue and ensemble for instrumentalists of string instruments or instruments that don't fit within the conventional repertoire and to offer rewarding musical experiences within the musical aesthetic. The ensemble meets for rehearsal during period 4 each day and after school on predetermined, coordinated and selected days in the band room. In this course of study the students are exposed to and study an assortment of musical arrangements in many distinct styles from classical, folk, rock, Latin to jazz and bluegrass. Also in this, students are introduced to the musical act of improvisation and its application to modern and historic music. The Ensemble performs several times throughout the year including holiday performances and an annual "String Collective" towards the end of the year. Upon inquiring about participation with the instructor, students are made aware of the rehearsal and performance commitments for that given year. Students wishing to be a part of the String Ensemble are not required to be a part of the band or chorus program though we do accept members who are.

Periods per week: 5

Unit of Credit: 1

Semesters: 2

MU1949 Percussion Ensemble

This year long one credit class provides percussion students with experience in the percussion idioms including snare, multiple percussion, timpani, mallet instruments (glockenspiel, xylophone, and marimba) and auxiliary percussion usage. Students will study music theory concepts, and will learn to apply those concepts to their various repertoires. Students will also study the fundamental rudiments of percussion and apply those rudiments to their various repertoires. This is accomplished through the guidelines of the National and State Standards of Music Education. This class serves as the percussion section to the Marching Band, Concert Bands, Jazz Bands, as well as a self-supporting performance Ensemble. Activities include school and community concerts, all marching band activities such as football games and parades. All students enrolled in this course will be members of the Thomas Jefferson Instrumental Music Department and will be members of the Concert and Marching Bands. All Percussionists must take this course.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MU1930 Varsity Choir

The Thomas Jefferson High School Varsity Choir is open to any student, grades 9-12, who expresses a sincere desire to sing. Students will learn to read music and will learn good singing techniques. Also, vocal technique and sight-reading skills are a part of each rehearsal.

They will prepare and present two major concerts a year. Attendance to these concerts is mandatory. In addition, other performances are held in the community throughout the school year. Students demonstrating exceptional abilities in Varsity Choir may audition for PMEA District Chorus in the fall.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MU1953 Concert Choir

The Thomas Jefferson High School Concert Choir is an auditioned-entry Choir. Students who are very serious about singing have the opportunity to prepare and audition for this advanced Choir. The Concert Choir is open to all students in grades 10- 12. Vocal technique and sight-reading skills are a part of each rehearsal. Students in Concert Choir are expected to be able to sing their part independently and with good vocal technique and musicianship. They will prepare and present two major concerts a year. Attendance to these concerts is mandatory. In addition, other performances are held in the community throughout the school year. Students in Concert Choir are encouraged to audition for PMEA District Chorus in the fall.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MU1940 A Cappella Choir

The A Cappella Choir is a year-long course open to students in Grades 9 – 12. These students must audition and be placed into this ensemble. They perform at all concerts, as well as school functions and community events. This group primarily performs contemporary a cappella music. Maximum class size: 24 students.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

MU1932 Show Choir

Show Choir is a performance-based class, where students learn to prepare and perform popular music. Students learn how to add choreography to songs, as well as text interpretation, facial and body expressions, and many performance skills. Show Choir performs at all TJHS concerts, as well as in the community at other community events. Students enrolled in Show Choir will master the skills of dancing and singing at the same time. Students will learn and perform songs from modern popular music as well as other classic show-style tunes such as music from Broadway while doing exciting theatrical gestures. Students must audition and be placed into this ensemble.

Periods per week: 5 Unit of Credit: 1 Semesters: 2

Physical Education and Health

Physical Education and Health

Physical education's primary goal at Thomas Jefferson is to provide students with the necessary skills and knowledge that will allow them to lead healthy, active lifestyles.

To meet this goal, we present students with a primarily cooperative atmosphere, focusing on three areas:

- Developmentally appropriate tasks, such as throwing, catching, and striking, providing the skills foundation for future physical activity.
- The role of physical fitness in a student's life, and what one can do to achieve then maintain a high level of fitness.
- Constant affirmation of affective skills, such as sportsmanship, patience, and concentration, from which everyone can benefit.
- All students at Thomas Jefferson High School must enroll and participate in Physical education class in three of their four years in high school. For elective credit, students may exceed the 1.5 credits required for graduation.

The primary goal of health education at Thomas Jefferson is to influence healthy living and healthy choices for a lifetime.

- Have students develop an understanding of the components of health – physical, mental, emotional and social.
- Have students understand that physical activity should be part of your daily routine that promotes good health throughout a lifetime.
- Learning the basics of nutrition that can help you become a more healthful eater both now and later in life.
- Learn that nutrition and exercise are important to maintain healthy bones and muscles.
- Learning preventative measures from diseases and disorders.
- Learn how to handle and deal with stress in life.
- Provide students with the knowledge of the systems of the body, including integumentary, skeletal, muscular, and reproductive.
- Have students develop an understanding of the common sexually transmitted infections and how to prevent them.

Physical Education and Health Courses

PE1717 Foundations of Health and Safety (Elective)

The goal of this course is to help students recognize and respond appropriately to cardiac, breathing and first aid emergencies. This course teaches skills that students need to know to give immediate care to a suddenly injured or ill person until more advanced medical personnel arrive and take over. We will focus on basic first aid guidelines, and the use of CPR/AED when needed. The students will analyze different scenarios and act in the appropriate manner in order to help the victim. Upon conclusion of the course, students will have the opportunity to earn an American Red Cross certification in the following areas:

- Adult/Child/Infant CPR
- Adult/Pediatric AED
- Basic First Aid and Safety
- Anaphylaxis and Epinephrine Auto-Injector
- Using a Tourniquet
- Asthma Inhaler

Periods per Week: 5

Unit of Credit: 0.5

Semester Course

PE1709 Physical Education 9

All 9th grade students will acquire, develop, and improve fitness and coordination skills in order to participate in moderate to vigorous activities. Students will select a team and/or lifetime activity at the beginning of each nine-week period and engage in a total of eight activities, four activity-based and four fitness-based, during the year. *NOTE: Swimming will be added to the curriculum upon moving to the new TJHS building.*

Periods per week: 5

Unit of Credit: 0.5

Semesters: 1

PE1710 Health/ PE10

All students in grade 10 will have a combined health/pe course that will meet five days per week. The Health program offers the student information to consider when deciding to use or not use alcohol, tobacco and drugs. This information is presented from the physical, mental/emotional and social aspects experienced by students. During the grade 10 year, Health and PE will be combined into one course that meets every day for one semester. Major emphasis is placed on care of the human body, wellness and several major topics including nutrition, fad diets and eating disorders, stress, stress management and coping. A unit is presented on characteristics of, dealing with and prevention of sexually transmitted disease, along with AIDS/HIV prevention and treatment and human reproduction. Resource persons are used to supplement instruction whenever possible. Supplemental materials in the form of video films, resource papers and handouts are used in class work along with implementation of technology and labs. Health will meet three days a week on Monday , Wednesday, and Friday of every week. Within this course, high school students will also take physical education class two days a week on Tuesday and Thursday for a semester. During PE class, students will acquire, develop, and improve fitness and coordination skills in order to participate in moderate to vigorous activities. Students will select a team and/or lifetime activity at the beginning of each nine-week period and engage in a total of eight activities, four activity-based and four fitness-based, during the year. NOTE: Swimming will be added to the curriculum upon moving to the new TJHS building.

Periods per week: 5

Unit of Credit: 0.5

Semesters: 1

PE1719 Competitive Team Games 11/12

During a student's junior or senior year, he/she will have to choose between one of the two 11/12 PE electives offered in order to comply with the credits required for graduation. Competitive Team Games will include all units involving a high level of competition including: basketball, volleyball, soccer, speed ball, flag football, bat ball, dodge ball, hockey, lacrosse, etc. Students will select a competitive team game to participate in every 2 weeks for a total of 10 classes per unit.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

PE1720 Individualized Fitness & Lifetime Activities 11/12

During a student's junior or senior year, he/she will have to choose between one of the two 11/12 PE electives offered in order to comply with the credits required for graduation. Individualized Fitness & Lifetime Activities will focus more on independent activities to help improve one's overall fitness, including: circuit training, yoga, walk/jog, etc., as well as less-competitive lifetime activities including: badminton, pickle ball, tennis, bowling, archery, ping pong, can jam, corn hole, bocce, etc.

Periods per week: 5

Unit of Credit: .5

Semesters: 1

PE1716 Sports Theory and Applications

The overall goal of this course is to have students apply the theoretical background of sports to the practical side of competitions. We will focus on the development and history of sports and the social implications associated with significant sports moments. Specific emphasis will be placed on the theoretical background of seasonal sports predicated by the Olympic Games. The students will evaluate and analyze sports play, sports officiating, and different game strategies of these sports. The students will be involved in researching, debating, and officiating in order to create their own sports theories and strategies. Relevant topics that influence public perception of sports, such as diversity and cheating, will be discussed and debated as well. It is expected that students will research a sports topic of their choice and create a professional presentation to defend their findings.

Prerequisites: Grades 9,10,11,12

Periods per week: 5

Unit of Credit: .5 elective credits; does not count as P.E. credit

Semesters: 1

Career Work Study Program/ Internship

Purpose

To provide career education and exploration through supervised community work activities.

Student Responsibilities

1. Request admission into program and complete application form.
2. Choose the work site.
3. Attend three class periods per day (minimum) at the high school.
4. Maintain a satisfactory school record. (Not more than one failure per semester.)
5. Maintain a satisfactory work record.
6. Abide by the work schedule agreed upon by the student, employer and school.
7. Not terminate employment during any given semester without the approval of the employer and school supervisor.

Parent Responsibilities

1. Provide liability coverage for student covering transportation to and from work.
2. Sign the application form.
3. Contact school supervisor concerning any problems pertaining to the job.

School Counselor Responsibilities

1. Verify accurate credit count to Assistant Principal for student applying to work study program Verification by school counselor's signature on application.
2. Make all necessary changes to student's schedule **after** final approval has been granted by Principal.

Employer Responsibilities

1. Abide by all laws and regulations governing the employment of students and minors.
2. Require a work permit if student is younger than 18 years of age.
3. Assist school officials with the evaluation of the student's work performance.
4. Report any irregularities to school officials immediately, including termination.
5. Sign the application form.

Assistant Principal Responsibilities

1. Maintain accurate record for student participating in the work study program.
2. Send evaluations via US Mail to student's employer for each nine week period.
3. Record grades to student's permanent record. (Student will not receive credit if **EMPLOYER** fails to return evaluation.)
4. After final approval of Associate Principal, copy of complete application will be forwarded to School Counselor for their files.

Time Requirements

1. Must be during school hours.
2. Should be a daily work schedule.

Academic Credits

1. One credit = one hour per day five days per week.
2. Two credits = two hours per day five days per week.
3. Three credits = three hours per day five days per week.

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STEEL CENTER FOR CAREER AND TECHNICAL EDUCATION

Students who attend Steel Center can gain a labor market advantage through active learning that meets the expectations of 21st century employers and colleges. Each program will guide students through rigorous career oriented practical activities reinforced through core academic instruction. Students' employability will be further promoted by their opportunity to gain Industry Standard Certifications required by local employers. Students also have the opportunity to join a Career and Technical Student Organization where they will learn leadership and citizenship principles. For more information about the opportunities offered at Steel Center, please visit www.steelcentertech.com.

PA DEPARTMENT OF EDUCATION PROGRAMS OF STUDY

In accordance with the Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Act), all Postsecondary Institutions receiving funds under the Act are required to award **college-level credit or equivalent clock hours** to a matriculated student and apply that credit toward the completion of the approved Pennsylvania Department of Education (PDE) Program of Study, leading to an industry-recognized credential or certificate **at the postsecondary level, or an associate or baccalaureate degree**. The purpose of this Agreement is to ensure that students make the transition from a school entity (**Steel Center**) to another school entity, college or university or a business/industry without experiencing delays in or duplication of learning. This Agreement sets forth the terms and conditions for the awarding of college-level credit or equivalent clock hours to students who complete the approved PDE Program of Study at a Secondary School so that those students can seamlessly continue their education in a related Program of Study at a Postsecondary Institution. This agreement outlines the general conditions between secondary and postsecondary institutions.

STEEL CENTER COURSE OFFERINGS

ST1635 Advertising & Design (Program of Study)

Grades 10-12

CIP Code: 50.0402, 3 credits/year.

Industry Certifications Available: Adobe Certified Associate CS6 Photoshop, InDesign, Illustrator, NOCTI Skills Testing Certification.

An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of printed media. This program includes instruction in concept design, layout, paste-up and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage and computer graphics.

ST1622 Automotive Mechanics (Program of Study)

Grades 10-12

CIP Code: 47.0604, 3 credits/year.

Industry Certifications Available: Pennsylvania State Automotive Safety Inspection, Pennsylvania State Emissions Inspection and EPA, NOCTI Skills Testing Certification

An instructional program that prepares individuals to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. This program includes instruction in the diagnosis and testing, including computer analysis, of malfunctions in and repair of engines, fuel, electrical, cooling and brake systems and drive train and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as cooling systems, drive trains, fuel system components and air conditioning and includes the use of technical repair information and the state inspection procedures.

ST1632 Baking/Pastry Chef (Program of Study)

Grades 10-12

CIP Code: 12.0501, 3 credits/year.

Industry Certifications Available: ServSafe Manager Food Safety, ServSafe Food Handler, S/P2 Culinary Safety and Pollution Prevention, NOCTI Skills Testing Certification

Specialized classroom and practical work experiences associated with the preparation of breads, crackers, cakes, pies, pastries and other bakery products for retail distribution, for consumption in a commercial food service establishment or for special functions. Instruction includes making, freezing and handling of bake products; decorating; counter display; and packaging of merchandise. This is a comprehensive program to prepare individuals for employment in a variety of occupations in the baking industry.

ST1633 Building Trades (Program of Study)**Grades 10-12****CIP Code: 46.0401, 3 credits/year.****Industry Certifications Available:** NOCTI Skills Testing Certification, Pennsylvania Builders Association Certification (PBA), OSHA-10 Hour Training CareerSafe

An instructional program that prepares individuals to apply technical knowledge and skills to keep a building functioning, and to serve a variety of structures including commercial and industrial buildings and mobile homes. Instruction includes the basics of carpentry, millwork, plumbing, painting, glazing, electricity, plastering, welding, minor sheet metal, concreting, bricklaying, tile setting, hardware usage, heating, ventilation, waterproofing, roofing and record keeping.

ST1619 Carpentry (Program of Study)**Grades 10-12****CIP Code: 46.0201, 3 credits/year.****Industry Certifications Available:** NOCTI Skills Testing Certification, Pennsylvania Builders Association Certification (PBA), OSHA 10 Hour Training CareerSafe

An instructional program that prepares individuals to apply technical knowledge and skills to lay out, fabricate, erect, install and repair structures and fixtures using hand and power tools. This program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques.

ST1639 Collision Repair and Refinishing (Program of Study)**Grades 10-12****CIP Code: 47.0603, 3 credits/year.****Industry Certifications Available:** S/P2 Collision Safety and Pollution Prevention, NOCTI Skills Testing Certification

An instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat.

ST1621 Computer Information Systems (Program of Study)**Grades 10-12****CIP Code: 52.1201, 3 credits/year.****Industry Certifications Available:** Microsoft Certified Professional, NOCTI Skills Testing Certification

An instructional program that prepares individuals to apply technical knowledge and skills to support the design and development of software applications, manage data systems and related mathematical statistics for analysis and forecasting of business data, process and retrieve business information, and prepare and interpret process and data models. Students will create a relational database, receive instruction in a variety of computer programming languages including writing, testing and debugging code; writing related system user documentation; demonstrating an understanding of core computer concepts to include the internet and the basic functions of business desktop applications; and analyzing common hardware, software and network processes. Students will receive instruction in business ethics and law, economics, office procedures and communications. Students will learn office safety, computer fundamentals, database administration and computer maintenance/troubleshooting.

ST1624 Cosmetology (Tech Prep Articulation Agreement with Douglas Education Center) Grades 10-12**CIP Code: 12.0401, 3 credits/year.****Industry Certifications Available:** Cosmetology License, Manicurist, Esthetician, NOCTI Skills Testing Certification

An instructional program that prepares individuals to apply technical knowledge and skills related to experiences in a variety of beauty treatments including the care and beautification of the hair, complexion and hands. Instruction includes training in giving shampoos, rinses and scalp treatments; hair styling, setting, cutting, dyeing, tinting and bleaching; permanent waving; facials; manicuring; and hand and arm massaging. Bacteriology, anatomy, hygiene, sanitation, salon management including record keeping and customer relations are also emphasized. Instruction is designed to qualify pupils for the licensing examination.

ST1623 Culinary Arts (Program of Study) Grades 10-12

CIP Code: 12.0508, 3 credits/year.

Industry Certifications Available: ServSafe Manager Food Safety, ServSafe Food Handler, S/P2 Culinary Safety and Pollution Prevention, NOCTI Skills Testing Certification

An instructional program that prepares students for employment related to institutional, commercial or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing and serving of quantity food and food products; nutritive values; use and care of commercial equipment; safety; and sanitation precautions. Instruction skills are provided to individuals desiring to become employed in all areas of the food service industry at entry level.

ST1626 Electrical Construction (Program of Study)**Grades 10-12**

CIP Code: 46.0399, 3 credits/year.

Industry Certifications Available: NOCTI Skills Testing Certification, Pennsylvania Builders Association Certification (PBA)

An instructional program that prepares individuals to apply technical knowledge and skills necessary to install, operate, maintain and repair electrically-energized residential, commercial and industrial systems, and DC and AC motors, controls and electrical distribution panels. Instruction emphasizes practical application of mathematics, science, circuit diagrams and use of electrical codes and includes blueprint reading, sketching and other subjects essential for employment in the electrical occupations. Reading and interpretation of commercial and residential construction wiring codes and specifications, installation and maintenance of wiring, service and distribution networks within large construction complexes are also critical components of the program.

ST1643 Exercise Science and Rehabilitation Services (Program of Study)**Grades 10-12**

CIP Code: 51.2604, 3 credits/year

Industry Certifications Available: To be determined, but may include the following: American Heart Association (AHA) Heartsaver First Aid, AHA CPR, HIPAA Certification, American Medication Certification Association (AMCA) Physical Therapy Aide, & Pennsylvania Skills Certification

A program that prepares individuals to assist in rehabilitation services under the supervision of physical therapists, occupational therapists, speech-language pathologists, and other therapeutic professionals, and to perform routine functions in support of rehabilitation. Includes instruction in roles and responsibilities of rehabilitation providers, basic function of the human body, disabling conditions, therapeutic skills, client management, and communication skills.

ST1636 Health Assistants (Program of Study)**Grades 10-12**

CIP Code: 51.0899, 3 credits/year.

Industry Certifications Available: Pennsylvania Nurse Aide Registry, Basic Life Support Health Care Providers, NOCTI Skills Testing Certification

A program with a combination of subject matter and experiences designed to prepare individuals for entry-level employment in a minimum of three related health occupations under the supervision of a licensed healthcare professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of healthcare and communications and at least three planned courses for the knowledge and skills for the occupational area such as medical assisting, ward clerk, nursing assisting, etc.

ST1618 Heating, Air Conditioning & Refrigeration (Program of Study)**Grades 10-12**

CIP Code: 47.0201, 3 credits/year.

Industry Certifications Available: EPA 608 Technician Certification, NOCTI Skills Testing Certification, Pennsylvania Builders Association Certification (PBA)

An instructional program that prepares individuals to apply technical knowledge and skills to install, repair and maintain commercial and domestic heating, air conditioning and refrigeration systems. Instruction includes theory and application of basic principles involved in conditioning of air (cooling and heating); filtering and controlling humidity; operating characteristics of various units and parts; blueprint reading; use of technical reference manuals; the diagnosis of malfunctions; overhaul, repair and adjustment of units and parts such as pumps, compressors, valves, springs and connections; and repair of electric/electronic and pneumatic control systems.

ST1642 Medical Professions (Program of Study)

Grades 10-12

CIP Code: 51.9999, 3 credits/year

Industry Certifications Available: To be determined, but may include the following: Basic Life Support (BLS), Pharmacy Technician (CPhT), EKG Technician (CET), Phlebotomy Technician (CPT), Nurse Technician (CNT), & Pennsylvania Skills Certification

This Program prepares individuals to apply knowledge and skills in the health occupations. Instruction is provided in the basic skills in a variety of areas associated with health supplies. Instruction includes, but is not limited to: foundations of health (Medical terminology); anatomy and physiology; legal, ethical and economic aspects of health care; clinical laboratory procedures; basic health occupational skills; aseptic techniques; OSHA regulations; and infection control. Clinical education is an integral part of the program. Science and math taught by certificated science and math teachers will be coordinated and deemed essential for students to successfully reach their career objectives.

ST1627 Medium/Heavy Truck (Program of Study)

Grades 10-12

CIP Code: 47.0613, 3 credits/year.

Industry Certifications Available: Pennsylvania State Automotive Safety Inspection, Pennsylvania State Emissions Inspection and EPA, SP/2 Heavy Duty Safety and Pollution Prevention, NOCTI Skills Testing Certification

A program that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Includes instruction in diesel engine mechanics, suspension and steering, brake systems, electrical and electronic systems, preventive maintenance inspections, drive trains, HVAC systems, and auxiliary equipment installation and repair.

ST1620 Protective Service (Program of Study)

Grades 10-12

CIP Code: 43.9999, 3 credits/year.

Industry Certifications Available: National Incident Management System, Basic Life Support Health Care Providers, Hazardous Materials Response Awareness, PATH- Practical and Tactical Handcuffing, NOCTI Skills Testing Certification

An instructional program that prepares individuals to apply technical knowledge and skills required for performing entry-level duties in law enforcement, firefighting, EMT and other safety services. This program stresses the techniques, methods and procedures peculiar to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, science and physics, students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.

ST1641 Veterinary Assistant (Program of Study)

Grades 10-12

CIP Code: 51.0808, 3 credits/year

Industry Certifications Available: To be determined, but may include the following: OSHA-10 Health Careers, CPR, Pet Tech First Aid, Purina Weight Coach, & Pennsylvania Skills Certification

An instructional program that prepares individuals to support veterinarians by providing assistance during animal examinations, treatment administration and monitoring; by keeping animal and related health record information; and by performing a range of selected practice-related duties. This program is designed to provide instruction in preparing the animal for examination and treatment, sterilizing equipment and performing selected routine laboratory procedures under direct supervision of the veterinarian. Instruction also includes maintaining medical and business records, charting and scheduling activities and a wide range of practice-related duties as applied to animal health care, the biomedical field and the pet industry. The health occupational planned courses include the study of life sciences with emphasis on animal anatomy, physiology, disease, reproduction, genetics, nutrition, animal laboratory procedures, aseptic technique, OSHA regulations, infection control and procedures. Clinical education is an integral part of the program. Science and math taught by certificated science and math teachers will be coordinated and deemed essential for students to successfully reach their career objectives.

ST1640 Welding (Program of Study)**Grades 10-12***CIP Code: 48.0508, 3 credits/year.*

Industry Certifications Available: NOCTI Skills Testing Certification, SP/2 Welding Safety Pollution and Prevention An instructional program that prepares individuals to apply technical knowledge and skills in gas, arc, shielded and non- shielded metal arc, brazing, flame cutting and plastic welding. Hand, semi-automatic and automatic welding processes are also included in the instruction. Students learn safety practices and types and uses of electrodes and welding rods; properties of metals; blueprint reading; electrical principles; welding symbols and mechanical drawing; use of equipment for testing welds by ultrasonic methods and destruction and hardness testing; use of manuals and specification charts; use of portable grinders and chemical baths for surface cleaning; positioning and clamping; and welding standards established by the American Welding Society, American Society of Mechanical Engineers and American Bureau of Ships.

School Sports and Organizations

School Sponsored Organizations	
*Academic League	Math Club
AP Humanities Club	Mock Trial
Apiary Club	Monticello
Art Club	Multi-Cultural Student Union
Best Buddies	**National Honor Society
Big Jag Little Cub Club	Outdoor Club
Computer Club	Prom
Conservation Club	Robotics Club
Drama Club	Spanish Club
French Club	Spanish Honors Society
French Honors Society	Spectrum
History Club	Statesman Newspaper
Interact Club	S.T.E.M. Club
International Club	Student Council
Intramurals	TJ vs Cancer
Love is Love Club	Winterguard
*Must complete a test to qualify	**Must qualify academically
School Sponsored Sports	
Baseball (Freshmen)	Softball
Baseball	Swimming & Diving (Boys/Girls)
Basketball (Boys/Girls)	Tennis (Boys/Girls)
Cheerleading	Track and Field (Boys/Girls)
Cross Country (Boys/Girls)	Volleyball (Boys/Girls)
Football (10 th Grade)	Junior High Wrestling
JV & V Football	Wrestling
Golf (Boys/Girls)	
Gymnastics	
Soccer (Boys/Girls)	
School Affiliated Sports Organizations: Bowling and Hockey	

Completed PIAA Comprehensive Sport forms are required for all athletic groups listed and must meet PIAA academic and attendance requirements

Child Find

CHILD FIND – Screening and Evaluation Services for School-age Students

The West Jefferson Hills School District provides a free, appropriate public education to eligible students. To qualify as an eligible student, the child must be of school age, in need of specially designed instruction, and meet eligibility criteria for one or more of the following physical or mental disabilities, as set forth in Individuals with Disabilities Improvement Act, IDEIA and referenced by Pennsylvania State Standards; autism, deaf blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, visual impairment including blindness.

The district uses the following procedures for locating, identifying, and evaluating specific needs of school-aged students requiring special programs or services. Screening efforts are designed to identify potential signs of developmental delays and other risk factors that could indicate disabilities. These procedures, as required by law, are as follows:

As prescribed by Section 1402 of the School Code, the district routinely conducts screenings of a child's hearing acuity in the following grades: Kindergarten, 1, 2, 3, 7 and 11. Visual acuity is screened in every grade. Speech and language skills are screened in Kindergarten and on a referral basis. Gross motor and fine-motor skills, academic skills, and social and/or emotional skills are assessed by classroom teachers and support staff on an on-going basis. Screening activities include review of group-based data, such as cumulative enrollment and health records, report cards, curriculum-based and performance-based assessments, and ability and achievement test scores. Identified needs from these screening sources as well as information obtained from parents and outside agencies, are assessed and noted within student records. School records are always open and available to parents, and only to school officials who have legitimate "need to know" information about the child. Information from the records is released to other persons or agencies only with appropriate authorization, which involves written permission, by parents.

If it is determined that a child needs additional services/interventions, the instructional team will make adjustments relative to such things as the child's learning style, behavior, physical inabilities, and speech problems to be more in keeping with traditional classroom expectancies. Parents are encouraged to be actively involved in the planning and implementation of intervention strategies. When the student does not make expected progress with this assistance or the screening results suggest that the student may be eligible, the district seeks parental consent to conduct a multidisciplinary evaluation.

If a MDE is appropriate, the district will provide "Permission to Evaluate" form to the parent outlining the purpose of the evaluation and the type of assessments that will be used. Parents must provide informed consent by signing and returning the permission before any evaluations can be completed. The purpose of the MDE is to establish the student's eligibility and need for special education and/or related services. Upon receipt of the signed permission, the district has 60 calendar days to complete the evaluation process. Parents who suspect their child is eligible may request an evaluation at any time to the building principal or contact the Special Education Department at 412-655-8450, ext. 2243. The request must be in writing. If the request is made orally, a copy of the "Permission to Evaluate" form will be provided to the parents within 10 calendar days of the oral request.

After the assessments are completed, an Evaluation Report (ER) will be compiled with parent involvement. The ER will determine if the student has a disability and requires specially designed instruction. The report will include specific recommendations for the types of intervention(s) necessary to deal with the child's specific needs. A copy of the Evaluation Report will be provided to the parent and the instructional team working with the student. For the student who has been found to be eligible for and in need of special education services, a meeting of the Individualized Education Program (IEP) team will be scheduled with parent involvement in order to develop the IEP for the student.

Eligible students are provided with a continuum of support and services designed to meet their individual needs. These services may include supplementary aids and services, and/or itinerant, supplemental or full-time support. The extent of special education services and the location for the delivery of such services are determined by the parents and staff at the IEP team meeting and are based on the student's identified needs and abilities, chronological age, and the intensity of the specified intervention. The school district also provides related services, such as transportation, physical therapy, and occupational therapy that are required to enable the student to derive educational benefits. Services are provided in the least restrictive environment to the maximum extent appropriate. The IEP team must first consider the regular classroom with the provision of supplementary aids and services before considering the provision of services in other settings.

Prior to the initiation of services, a "Notice of Recommended Educational Placement" (NOREP) must be signed by the parent indicating approval for the services to be provided. Parents may obtain additional information regarding special education services and/or parental due process rights by contacting the child's school principal or the Special Education Department at 412-655-8450, ext. 2242.

Services for Students in Nonpublic Schools

Parents of nonpublic school students who suspect that their child is eligible and in need of special education services may also make a request for screening and/or evaluation. Parental requests should be made in writing and directed to the West Jefferson Hills School District Special Education Department at 835 Old Clairton Road, Jefferson Hills, PA 15025. Special education services are accessible to nonpublic school students through dual enrollment following the multidisciplinary evaluation and the development of the IEP.

Services for Protected Handicapped Students / Chapter 15 Regulations

In compliance with state and federal law, the West Jefferson Hills School District will provide to each protected handicapped student without discrimination or cost to the student or family, those related aids services, or accommodations which are needed to provide equal opportunity to participate in and obtain the benefits of the school programs and extracurricular activities to the extent appropriate to the student's abilities. To qualify as a protected handicapped student, the child must be of school age with a physical or mental disability, which substantially limits or prohibits participation in or access to an aspect of the school program.

These services and protections for "protected handicapped students" are distinct from those applicable to all eligible students enrolled (or seeking enrollment) in special education programs. To obtain additional information about the evaluation procedures and provisions of services to protected handicapped students, contact the Special Education Department at 412-655-8450, ext. 2242.

Services for Preschool Age Children

Act 212, the Early Intervention System Act, entitles all preschool age children with disabilities to appropriate early intervention services. Young children experiencing developmental delays or physical or mental disabilities are eligible for early intervention services.

The Pennsylvania Department of Public Welfare is responsible for providing services to infants and toddlers, defined as children from birth through two years of age. Contact: The Alliance for Infants and Toddlers, 2100 Wharton Street, Suite 705, Pittsburgh, PA 15203, 412-431-1905.

The Pennsylvania Department of Education is responsible for providing services to preschool age children from ages three through five. Contact Project DART, 475 E. Waterfront Drive, Homestead, PA 15120 or by phone at 412-394-5739 for more information.

Services for Gifted Students

According to the Pennsylvania Regulations and Standards in Special Education, mentally gifted pupils are defined as having: "Outstanding intellectual and creative abilities the development of which requires special services not usually available in the regular education program. This term includes a person who has an IQ of 130 or higher and when multiple criteria as set forth in the Department of Education guidelines indicate gifted ability. Determination of gifted ability shall not be based on IQ score alone. Intellectual ability is and should reflect a range of assessments including a student's performance as well as potential. A person with an IQ score lower than 130 may be admitted to gifted programs when other educational criteria in the profile of the person strongly indicate gifted ability. Determination of mentally gifted shall include a full assessment and comprehensive report by a public school psychologist specifying the nature and degree of the ability."

West Jefferson Hills School District reviews student performance data to identify when a student may require differentiated instruction. These data include; standardized and criterion referenced test data, developmental checklists, curriculum-based assessments, formative evaluation procedures and portfolios. For students who require differentiated instruction, the instructional team reviews the strengths of the child and plans strategies designed to meet the child's needs (strengths). When a student's needs cannot be met within the general curriculum, a gifted multidisciplinary evaluation will be initiated upon written permission from the parents. If appropriate, a Gifted Individualized Education Plan (GIEP) will be written.

If you suspect your child may be mentally gifted, please contact the building principal or Special Education Department at 412-655-8450, ext. 2242.

Naviance and Career Development

Naviance by Hobsons is a comprehensive college and career readiness platform. Naviance helps middle and high school students discover their strengths, explore college and career interests, create actionable goals, create academic plans, and find their best-fit path after high school, whether they wish to attend a 2- or 4- year college, a CTE program, or go directly into the workforce or military. Naviance supports college and career readiness through encouraging academic rigor and aligning student strengths, interests and passions to long-term goals.

Naviance helps students to explore future careers. Careers are divided into 16 career clusters. Different career clusters are aligned to different student strengths and interests. Each career cluster then has specific pathways within the cluster. Naviance provides information for hundreds of career options. Throughout a student’s time at Thomas Jefferson High School, students will be encouraged to develop specific career interests and create a career plan prior to the end of junior year. Naviance provides different inventories, assessments, and research to help students learn more about future career paths.

Different students have different needs and we want students to be able to pursue an education that will make sure each student is on the way to a rewarding and sustaining career. With that in mind, information regarding each of the different career clusters is provided below. A description of the career cluster, employment outlook, and recommended electives at Thomas Jefferson and possible programs through Steel Center High School are included for each career cluster.

Recommended core classes are not included within each career cluster and can vary from one cluster to another as well as based on a student’s interest and abilities. The recommended elective options are by no means required for a specific cluster nor will the list always fit with each individual student’s needs.

In general, it is important that students pursue that about which they are passionate. There will be overlap with different clusters and interests and this should be used as a guide to have students think about life after high school. Students interested in a STEM (Science, Technology, Engineering, and Math) career cluster should absolutely take a music class if they love music. The opposite is true for students considering a career in the arts if there is a love for science - take a science class.

Use high school as a time to develop, test out, and pursue possible careers. After high school it is important to earn a post-high school credential. Apprenticeships, technical schools, four year degrees, and professional degrees are all forms of post-secondary credentials. Apprenticeships and Steel Center programs provide students the opportunity to gain a specialized credential without having to pay for much additional schooling. Trade and technical schools along with two year associate degree programs allow you to pursue specific career-related degrees that can lead to employment. Traditional four year degrees provide a post-secondary credential and can lead to professional degree programs (Pharmacy, Medical School, Law School, etc).

Naviance Career Clusters

Agriculture, Food and Natural Resources	
Description:	<p>The Agriculture, Food and Natural Resources Career Cluster is divided into seven pathways. Pathways are grouped by common knowledge and skills required of occupations in these career fields. Each pathway provides instruction as a basis for success in an array of careers and educational pursuits.</p> <p>This diverse Career Cluster prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical and educational services.</p>
Employment Outlook	Employment opportunities will continue to increase for those who provide and market an expanding array of food, forest, and veterinary

	<p>medical consumer products to a growing world population. Continued globalization of the food, agricultural and natural resources system will increase opportunities for graduates who understand the socio-economic factors that define international markets. Graduates who know how to satisfy the diverse consumer needs and preferences in different cultures, and who have the language skills to communicate effectively, will have the best opportunities to be employed by the growing number of multinational businesses.</p>
Pathways	<ul style="list-style-type: none"> ● Agribusiness Systems ● Animal Systems ● Environmental Service Systems ● Food Products and Processing Systems ● Natural Resource Systems ● Plant Systems ● Power, Structural and Technical Systems
Suggested Elective Courses	<p>Public Speaking, Environmental Science, Anatomy and Physiology, Economics, Law, Sociology, Psychology, Statistics and Probability, Software Applications, Technology Systems, Innovation and Invention, Foods and Nutrition, Career Work Study</p>
Steel Center Career Pathways Options	<p>Heating, Air Conditioning & Refrigeration, Electrical Construction</p>
Possible Careers	<p>Agricultural and Food Science Techs, Agricultural Equipment Operators, Animal Scientists, Biochemists and Biophysicists, Agribusiness, Conservation Scientists, Environmental Engineering Technicians, Farmers, Floral Designers, Foresters, Graders and Sorters, Agricultural Products, Grounds Maintenance Workers, Mechanical Engineering Technicians, Service Unit Operators, Oil, Gas, and Mining, and many others!</p>
Related Majors	<p>Agribusiness/Agricultural Business Operations, Animal Sciences, Dairy Science, Forestry, General, Parks, Recreation and Leisure Studies, Plant Sciences, Turf and Turfgrass Management, Wildlife and Wildlands Science and Management, and many others!</p>

Architecture and Construction	
Description:	<p>The Architecture and Construction Career Cluster is divided into three pathways. Pathways are grouped by the knowledge and skills required for occupations in these fields. Each pathway provides instruction as a basis for success in an array of careers and educational pursuits. This diverse Career Cluster prepares learners for careers in designing, planning, managing, building and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.</p>
Employment Outlook	<p>Architecture and construction comprise one of the largest industries in the United States. Based on the latest statistics, this career cluster has 7.8 million jobs. In the next few years, many new jobs will be added and many employment opportunities will result from the need to replace experienced workers who leave jobs.</p>
Pathways	<ul style="list-style-type: none"> ● Design/Pre-Construction ● Construction

	<ul style="list-style-type: none"> • Maintenance/Operations
Suggested Elective Courses	Architecture, Computer Aided Drafting, Computer Aided Manufacturing, Construction Technology, Engineering, Innovation and Invention, Robotics, Economics, Psychology, Public Speaking, Software Applications
Steel Center Career Pathways Options	Building Trades, Carpentry, Electrical Construction Heating, Air Conditioning & Refrigeration, Welding
Possible Careers	Architects, Carpet Installers, Civil Engineering Technicians, Construction Laborers, Construction Managers, Cost Estimators, Engineering Technicians, Heating and Air Conditioning Mechanics and Installers, Interiors Designers, Pipefitters and Steamfitters, Railroad Conductors and Yardmasters, Refrigeration Mechanics and Installers, Rotary Drill Operators, Oil and Gas, Stonemasons, Surveying Technicians, and many more
Related Majors	Architectural Drafting and Architectural CAD, Architecture (BArch, BA/BS, etc), Boilermaker, Building Construction Management, Carpentry, Construction Trades, Drywall Installation, Electrical and Power Transmission Installers, Electrician, Environmental Design/Architecture, Heating, Air Conditioning, Ventilation and Refrigeration Technology, Ironworker, Landscape Architecture, Surveying Engineer, and many more!

Arts, Audio/Video Technology and Communications

Arts, Audio/Video Technology and Communications	
Description:	<p>This cluster offers two different avenues of concentration. Careers in the Performing Arts, Visual Arts or certain aspects of Journalism, Broadcasting and Film require courses and activities that challenge students' creative talents.</p> <p>Careers in Audio-Video Communications Technology, Telecommunications or Printing Technology require strong backgrounds in computer and electronic-based technology and a solid foundation in math and science. All require an ability to effectively communicate in both oral and written form. In addition, the creative aspects of this cluster are rapidly merging with the technological, making it even more challenging. Preparation for careers in this cluster must begin in the early years and continue through high school, allowing students to gain experience in the performing and visual arts as well as in the academic foundations.</p>
Employment Outlook	There were about 1.8 million jobs in the occupations that are assigned to the arts, audio/video technology, and communications cluster. Median annual wages for these occupations ranged from \$24,220 for floral designers to \$83,000 for art directors. Most job openings in the arts, audio/video technology, and communications cluster are projected to be in occupations assigned to the visual arts pathway, which includes graphic designers. This occupation is projected to have the most job openings in the cluster.
Pathways	<ul style="list-style-type: none"> • Audio and Video Technology and Film • Journalism and Broadcasting • Performing Arts • Printing Technology • Telecommunications • Visual Arts

Suggested Elective Courses	Creative Writing, Introduction to Film Criticism, Film Criticism, Journalism, Introduction to Public Relations, Performing Arts, Public Speaking, Theater Orientation, Psychology, Sociology, Incubatoredu - Entrepreneurship, Exploratory Business, Marketing, Personal Finance, Web Page Development & Design, Software Applications, TJJTV, TJJTV 2, Technology Systems, Adult Living, Fabric, Fashion and Design 1 and 2, Interior Design, Introduction to Family & Consumer Science, AP Studio Art, Basic Graphic Design, Ceramics, Creative Studio Media, Drawing, General Art, Metals/Jewelry, Mixed Media Arts, Painting, Photography/Video Production, Sculpture Studio, Music Theory and History, Music Theory II, Marching/Symphonic Band, Choir, Jazz Ensemble, String Ensemble, Percussion Ensemble, Career Work Study
Steel Center Career Pathways Options	Advertising & Design Cosmetology
Possible Careers	Actors, Broadcast Technicians, Copy Writers, Media and Communication Workers, Producers and Directors, Public Relations Specialists, Radio and TV Announcers, Sound Engineering Technicians, Writers and Authors, and many more
Related Majors	Animation, Broadcast Journalism, Commercial Photography, Digital Communication and Media, Film Studies, Graphic Design, Photojournalism, Radio and Television, Performing Arts, and many more

Business Management and Administration

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Business Management and Administration. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes, and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Business Management and Administration Cluster prepares learners for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.</p>
Employment Outlook	Nearly half of all jobs are in managerial and professional occupations, and nearly one-fourth of all workers are self-employed. The business management and administration services industry is one of the highest paying industries. Most job openings in the business management and administration cluster are projected to be in occupations assigned to the administrative support pathway—including customer service

	representatives, the occupation expected to have the largest number of job openings in the cluster.
Pathways	<ul style="list-style-type: none"> ● Administrative Support ● Business Information Management ● General Management ● Human Resources Management ● Operations Management
Suggested Elective Courses	Introduction to Public Relations, Public Speaking, Economics, Psychology, Sociology, Statistics and Probability, Accounting, Accounting II, Accounting II, INCubatoredu - Entrepreneurship, Exploratory Business, Marketing, Personal Finance, Retail Management, Software Applications, Web Page Development and Design, World Languages (Spanish or French), Adult Living, Career Work Study
Steel Center Career Pathways Options	Advertising & Design
Possible Careers	Accountants, Advertising Sales Agents, Data Entry Keyers, Financial Managers, General and Operations Managers, Human Resources Specialists, Market Research Analysts and Marketing Specialists, Purchasing Managers, Receptionists and Information Clerks, Statisticians, Transportation, Storage, and Distribution Managers, and many more
Related Majors	Accounting, Advertising, Business Technology, Human Resources, Information Resources Management, International Business, Labor Studies, Logistics and Materials Management, Public Relations, Receptionist, and many others

Education and Training

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Education and Training. Learners need a solid background in academic, technical and presentation/ facilitation skills. The educational background for a career in the education and training field can begin in high schools, technical colleges/institutes, and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing and providing education and training services, and related learning support services. Each year many learners train for careers in education and training in a variety of settings that offer academic instruction, career technical instruction, and other education and training services.</p>
Employment Outlook	A growing emphasis on improving education and making it available to more Americans will increase the overall demand for workers in the

	education and training cluster. Employers are expected to devote greater resources to job-specific training programs in response to the increasing complexity of many jobs and technological advances that can leave employees with obsolete skills. A substantial number of older teachers are expected to reach retirement age through 2024. Their retirement will increase the need to replace workers who leave the occupation. This will result in a particularly strong demand for training and development specialists across all industries.
Pathways	<ul style="list-style-type: none"> • Administration and Administrative Support • Professional Support Services • Teaching and Training
Suggested Elective Courses	Public Speaking, Psychology, Sociology, Personal Finance, Software Applications, Webpage Development and Design, World Languages (Spanish or French), Child Development 1, Child Development 2, Sports Theory & Application, Foundations of Health & Safety, Career Work Study
Steel Center Career Pathways Options	
Possible Careers	Adult Literacy Instructors, Teachers (specialized by interest), Instructional Coordinators, Interpreters and Translators, Librarians, Recreation Workers, Teacher Assistants, and many others
Related Majors	Administration of Special Education, Counselor Education/School Counseling, Curriculum and Instruction, Early Childhood Education, Education, Library Science, Teaching English as a Second or Foreign Language/ESL Language Instructor, and many others

Finance	
Description:	<p>There are thousands of challenging educational and training opportunities within the high-skilled world of Finance. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges, two-year community colleges, four-year colleges, and career technical schools/institutes.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Finance Cluster prepares learners for careers in financial and investment planning, banking, insurance and business financial management. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.</p>
Employment Outlook	The finance industry is a critical sector of the United States economy with

	over 5 million people employed in finance-related occupations. Although some of the finance occupations project only moderate growth through the year 2024, the advances in technology and trends in digital marketing provide exciting and challenging opportunities for careers across all areas of the cluster, especially in the banking services pathway. In the next few years, many new jobs will be added and many openings will result from the need to replace experienced workers who leave jobs.
Pathways	<ul style="list-style-type: none"> ● Accounting ● Banking Services ● Business Finance ● Insurance ● Securities and Investments
Suggested Elective Courses	Public Speaking, Economics, Law, Psychology, Sociology, Statistics and Probability, Calculus, Accounting, Accounting II, Accounting III, Incubatoredu - Entrepreneurship, Cyber Forensics, Exploratory Business, Marketing, Personal Finance, Retail Management, Python - Introduction to Programming, Software Applications, Web Page Development & Design, World Languages, Career Work Study
Steel Center Career Pathways Options	
Possible Careers	Actuary, Claims Adjusters, Financial Analysts, Insurance Underwriters, Personal Financial Advisors, Sales Agents, Treasurers and Controllers, and many more
Related Majors	Actuarial Science, Banking and Financial Support Services, Finance, Insurance, Investments and Securities, and many others

Government and Public Administration

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Government and Public Administration. Learners need a solid background in social studies, political science, foreign language and history. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers.</p> <p>Government affects everyone in countless ways. In a democratic society, government is the means of expressing the public will. In fact, virtually every occupation can be found within government. There are some activities unique to government. The federal government defends the public from foreign aggression; represents the nation's interests abroad; deliberates, passes and enforces laws; and administers many different programs. State and local governments pass laws or ordinances and provide vital services to constituents. There are many opportunities in government in every career area. The Government and Public</p>
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	Administration Career Cluster focuses on unique careers only available within government.
Employment Outlook	<p>Because of its public nature, the factors that influence federal government staffing levels are unique. The Congress and President determine the government's payroll budget. Each Presidential Administration and Congress have different public policy priorities, which increase levels of federal employment in some programs and decrease federal employment in others.</p> <p>State and local government employment is projected to increase marginally during the next decade, however, efforts to cut spending are expected to result in a decline in federal government employment. Jobs growth will stem from a rising demand for services at the state and local levels. An increasing population, along with state and local assumption of responsibility for some services previously provided by the federal government, is fueling the growth of these services.</p>
Pathways	<ul style="list-style-type: none"> ● Foreign Service ● Governance ● National Security ● Planning ● Public Management and Administration ● Regulation ● Revenue and Taxation
Suggested Elective Courses	Public Speaking, Introduction to Public Relations, Environmental Science, Shaping the Modern World, Economics, Law, Psychology, Sociology, Statistics and Probability, Accounting, Accounting II, Accounting III, AP Computer Science, Android Mobile Apps, Cyber Forensics, Exploratory Business, Personal Finance, Python - Introduction to Programming, Software Applications, Web Page Development & Design, Computer Aided Drafting, Computer Aided Manufacturing, Engineering, Innovation and Invention, Robotics, Technology Systems, World Languages, Foundations of Health & Safety, Career Work Study
Steel Center Career Pathways Options	Computer Information Systems Protective Service
Possible Careers	Auditors, Chief Executives, Emergency Management Directors, Legislators, Political Scientists, Public Relations Specialists, Transportation Managers, Urban and Regional Planners and many more
Related Majors	American Government and Politics, City/Urban, Community and Regional Planning, Political Communication, Political Science and Government, Public Policy Analysis, and many others

Health Science	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Health Science. Learners need a solid background in math, science, communications, and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good</p>

	<p>match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This Health Science Career Cluster orients students to careers that promote health, wellness, and diagnosis as well as treat injuries and diseases. Some of the careers involve working directly with people, while others involve research into diseases or collecting and formatting data and information. Work locations are varied and may be in hospitals, medical or dental offices or laboratories, cruise ships, medivac units, sports arenas, space centers, or within the community.</p>
Employment Outlook	<p>Employment of healthcare occupations is projected to grow 19 percent through 2024, much faster than the average for all occupations. This growth is expected due to an aging population and because federal health insurance reform should increase the number of individuals who have access to health insurance.</p> <p>The median annual wage for healthcare practitioners and technical occupations (such as registered nurses, physicians and surgeons, and dental hygienists) is \$61,710, which is higher than the median annual wage for all occupations in the economy of \$35,540. However, healthcare support occupations (such as home health aides, occupational therapy assistants, and medical transcriptionists) has a median annual wage of \$26,440, lower than the median annual wage for all occupations in the economy.</p> <p>Home health aides are predicted to grow by 38 percent, medical assistants will grow by 23 percent, and physician assistants will grow by 30 percent. The continued growth in both the aging and general population, as well as an increase in several chronic diseases, such as diabetes, will drive the need for more healthcare jobs.</p>
Pathways	<ul style="list-style-type: none"> ● Biotechnology Research and Development ● Diagnostic Services ● Health Informatics ● Support Services ● Therapeutic Services
Suggested Elective Courses	Public Speaking, Anatomy & Physiology, Environmental Science, Psychology, Sociology, Statistics & Probability, Calculus, Python - Introduction to Programming, Software Applications, World Languages, Foundations of Health & Safety, Career Work Study
Steel Center Career Pathways Options	Computer Information Systems Health Assistants Protective Service
Possible Careers	Administrative Services Managers, Ambulance Drivers and Attendants, Athletic Trainers, Chiropractors, Computer Programmers, Dental Assistants, Dietitians and Nutritionists, Emergency Medical Technicians and Paramedics, Health Diagnosing Practitioners, Medical Records and Health Information Technicians, Medical Secretaries, Nuclear Technicians, Occupational Health and Safety Specialists, Occupational

	Therapists, Pharmacists, Physical Therapist Assistants, Physicists, Respiratory Therapists, Surgeons, Veterinarians, and many more
Related Majors	Allied Health and Medical Assisting, Anesthesiologist Assistant, Athletic Training/Trainer, Speech-Language Pathology, Communication Disorders Sciences, Sonography and Ultrasound Technician, Health Services Administration, Medical Informatics, Medicine, Occupational Therapy, Pharmacy Technician, Public Health, Veterinary Medicine, and many more

Hospitality and Tourism	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Hospitality and Tourism. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Hospitality and Tourism Cluster prepares learners for careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreational events and travel-related services. Hospitality operations are located in communities throughout the world.</p>
Employment Outlook	The hospitality and tourism industry directly supports over 5 million jobs and is one of the biggest job generators in the US, generating over 9 percent of the country's employment. Salaries depend on the employee's skills, education and job level at a hotel, restaurant, tourism office, recreation facility, amusement park or attraction site. Median annual salaries for these occupations range from \$18,330 for combined food preparation and serving workers to \$66,200 for gaming managers. This industry is known for promoting within and for its large number of young managers.
Pathways	<ul style="list-style-type: none"> ● Lodging ● Recreation, Amusements and Attractions ● Restaurants and Food/Beverage Services ● Travel and Tourism
Suggested Elective Courses	Public Speaking, Introduction to Public Relations, Economics, Psychology, Sociology, Statistics and Probability, Exploratory Business, Marketing, Accounting I, Accounting II, Accounting III, Personal Finance, Software Applications, Web Page Development & Design, Python - Introduction to Programming, Incubatoredu - Entrepreneurship, World Languages, Foods and Nutrition, Introduction to Family and Consumer Science, Basic Graphic Design, Mixed Media Arts, Photography/Video Production,

	Career Work Study
Steel Center Career Pathways Options	Advertising & Design Baking/Pastry Chef Culinary Arts
Possible Careers	Bakers, Chefs, Farm and Home Management Advisors, Gaming Managers, Lodging Managers, Reservation and Transportation Ticket Agents and Travel Clerks, Slaughterers and Meat Packers, Travel Agents, and many more
Related Majors	Baking and Pastry Arts, Bartender, Facilities Planning and Management, Hospitality Administration/Management, Hotel Management, Personal and Culinary Services, Tourism Promotion Operations and many more

Human Services	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Human Services. Learners need a solid background in communication, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares individuals for employment in career pathways related to families and human needs.</p>
Employment Outlook	Based on the latest statistics, approximately 5 million people are employed in human services occupations. Faster than average employment growth through the year 2024, coupled with high turnover, should create numerous employment opportunities. Median annual wages for these occupations vary. For example, the median annual wage for shampooers is \$18,510, and the wage for industrial-organizational psychologists is \$80,330.
Pathways	<ul style="list-style-type: none"> ● Consumer Services ● Counseling and Mental Health Services ● Early Childhood Development and Services ● Family and Community Services ● Personal Care Services
Suggested Elective Courses	Public Speaking, Anatomy & Physiology, Psychology, Sociology, Statistics & Probability, Personal Finance, Software Applications, World Languages, Adult Living, Child Development I, Child Development II, Foundations of Health & Safety, Career Work Study

Steel Center Career Pathways Options	Cosmetology Protective Services
Possible Careers	Chief Executives, Childcare Workers, Counseling Psychologists, Epidemiologists, Funeral Service Managers, Healthcare Social Workers, Interpreters and Translators, Probation Officers and Correctional Treatment Specialists, Protective Service Workers, School Psychologists, Sociologists, and many more
Related Majors	Business Family and Consumer Sciences, Child Development, Christian Studies, Cosmetology, Family Systems, Logic, Mental Health Counseling, Mortuary Science, Philosophy, Public Administration and Social Service Professions, Substance Abuse Counseling, Youth Ministry, and many more

Information Technology	
Description:	<p>IT careers involve the design, development, support and management of hardware, software, multimedia and systems integration services. The IT industry is a dynamic and entrepreneurial working environment that has a revolutionary impact on the economy and society. In addition to careers in the IT industry, IT careers are available in every sector of the economy from Financial Services to Medical Services, from Business to Engineering and Environmental Services.</p> <p>Anyone preparing for an IT career should have a solid grounding in math and science.</p> <p>A career in IT is challenging and ever-changing. Those who pursue jobs in the IT sector will quickly discover ongoing opportunities to learn about and work with exciting new technologies that are transforming the world. IT education can be obtained in high schools, technical colleges/institutes and universities.</p>
Employment Outlook	Employment of computer and information technology occupations is projected to grow 12 percent over the next decade, in part due to a greater emphasis on cloud computing, the collection and storage of big data, more everyday items becoming connected to the internet in what is commonly referred to as the "Internet of things," and the continued demand for mobile computing. The median annual wage for computer and information technology occupations is \$79,390, ranging from \$46,620 for computer user support specialists to \$98,430 for computer network architects..
Pathways	<ul style="list-style-type: none"> ● Information Support and Service ● Network Systems ● Programming and Software Development ● Web and Digital Communications
Suggested Elective Courses	Statistics & Probability, Calculus, Advanced Placement Computer Science, Android Mobile Apps Programming, Incubatoredu - Entrepreneurship, Cyber Forensics, Personal Finance, Python - Introduction to Programming, Software Applications, Web Page Development and Design, Computer Aided Drafting, Computer Aided Manufacturing, Innovation and Invention, Robotics, Technology Systems, World Languages, Career Work Study Program, Basic Graphic Design

Steel Center Career Pathways Options	Computer Information Systems
Possible Careers	Computer and Information Research Scientists, Computer Hardware Engineers, Computer Network Architects, Computer Programmers, Database Administrators, Information Security Analysts, Software Developers
Related Majors	Artificial Intelligence and Robotics, Computer and Information Systems Security, Computer Science, Data Modeling, Information Technology, System, Networking, and LAN/WAN Management, Web/Multimedia Management and Webmaster, and many more

Law, Public Safety, Corrections and Security

Description:	There are many challenging educational and training opportunities within the high-skilled world of Law, Public Safety, Corrections and Security. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities. Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers. The Law, Public Safety, Corrections and Security Cluster helps prepare students for careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.
Employment Outlook	There are approximately 5 million jobs in the occupations assigned to the law, public safety, corrections, and security cluster. Employment of protective services and legal occupations is projected to grow around 5 percent through 2024. Numerous job openings will stem from employment growth attributable to the continued desire for increased corporate, industrial and homeland security, and the maintenance of public safety. Median annual wages for these occupations range from \$19,040 for lifeguards, ski patrol, and other recreational protective service workers, to \$118,150 for judges, magistrate judges, and magistrates.
Pathways	<ul style="list-style-type: none"> ● Correction Services ● Emergency and Fire Management Services ● Law Enforcement Services ● Legal Services ● Security and Protective Services
Suggested Elective Courses	Public Speaking, Anatomy & Physiology, Economics, Law, Psychology, Sociology, Software Applications, World Languages, Adult Living, Foods and Nutrition, Foundations of Health & Safety, Career Work Study
Steel Center Career Pathways Options	Protective Service
Possible Careers	Administrative Law Judges, Adjudicators, and Hearing Officers, Bailiffs,

	Child, Family, and School Social Workers, Court Reporters, Firefighters, Forensic Science Technicians, Lawyers, Legal Secretaries, Paralegals and Legal Assistants, Police Detectives, Security Guards, Transit and Railroad Police, and many more
Related Majors	American Law, Banking, Corporate, Finance, & Securities Law, Corrections, Criminology, Fire Protection, Juvenile Corrections, Securities Services Administration/Management, Security and Loss Prevention Services, and many more

Manufacturing	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Manufacturing. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers. Apprenticeship programs prepare learners for journey-worker status.</p> <p>Industry plays a major role in training and career development by supporting apprenticeships, training, joint industry/school programs and industry training leading to certification and college/university credit.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing, and performing the processing of materials into intermediate or final products. Careers also include related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.</p>
Employment Outlook	<p>There are approximately 12 million jobs in the occupations that are assigned to the manufacturing cluster. Technological advancements are replacing many of the manufacturing workers that make up a large share of the production occupations. Fewer workers are needed in the manufacturing sector as many processes have become computer-controlled. While production occupations are projected to decline 3 percent through 2024, installation, maintenance, and repair occupations are projected to grow 6 percent, about as fast as the average for all occupations. Median annual wages for these occupations range from \$21,490 for sewing machine operators to \$78,350 for nuclear power reactor operators.</p>
Pathways	<ul style="list-style-type: none"> ● Health, Safety and Environmental Assurance ● Logistics and Inventory Control ● Maintenance, Installation and Repair ● Manufacturing Production Process Development ● Production

	<ul style="list-style-type: none"> Quality Assurance
Suggested Elective Courses	Public Speaking, Personal Finance, Exploratory Business, Software Applications, Advanced Studies in Technology, Architecture, Computer Aided Drafting, Computer Aided Manufacturing, Construction Technology, Engineering, Innovation and Invention, Robotics, Technology Systems, World Languages, Career Work Study
Steel Center Career Pathways Options	Automotive Mechanics, Building Trades, Carpentry Electrical Construction, Heating, Air Conditioning & Refrigeration, Medium/Heavy Truck, Welding
Possible Careers	Cabinetmakers and Bench Carpenters, Civil Engineering Technicians, Construction Workers, Electrical and Electronic Engineering Technicians, Elevator Installers and Repairers, Environmental Engineering Technicians, Fence Erectors, Locksmiths and Safe Repairers, Machinists, Millwrights, Nuclear Monitoring Technicians, Roustabouts, Oil and Gas, Telecommunications Line Installers and REpairers, Welders, Cutters, Solderers, Woodworks, and many more
Related Majors	Apparel and Textile Manufacture, Appliance Installation and Repair Technology, Biomedical Technician, Computer Hardware Technology/Technician, Electrical Installation & Repair, Furniture Design and Manufacturing, Heavy/Industrial Equipment Maintenance, Hydraulics and Fluid Power Technology, Laser and Optical Technician, Locksmithing, Occupational Safety and Health Technology, Sheet Metal Technology, Welding Technology, and many more

Marketing	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Marketing. Learners need a solid background in communication, math and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing and performing marketing activities to reach organizational objectives.</p>
Employment Outlook	According to the latest statistics, there are about 15.3 million jobs in the marketing cluster, one of the largest in terms of jobs. Median annual wages for these occupations range from \$18,960 for cashiers to \$123,220 for marketing managers. Advertising, marketing, promotions, public relations and sales managers hold more than 600,000 jobs. Employment opportunities for retail salespeople are expected to be good. Individuals with a college degree or computer skills will be sought for managerial

	positions in marketing management, professional sales, merchandising, marketing communications, and marketing research.
Pathways	<ul style="list-style-type: none"> ● Marketing Communications ● Marketing Management ● Marketing Research ● Merchandising ● Professional Sales
Suggested Elective Courses	Introduction to Public Relations, Public Speaking, Economics, Psychology, Sociology, Statistics and Probability, Accounting I, Exploratory Business, Marketing, Personal Finance, Python - Intro. to Programming, Software Applications, Web Page Development and Design, Incubatoredu - Entrepreneurship, Android Mobile Apps with Java, Advanced Placement Computer Science, TJTV, World Languages, Basic Graphic Design, General Art, Mixed Media Arts, Photography/Video Production, AP Art, Creative Studio Media, Career Work Study Program
Steel Center Career Pathways Options	Advertising and Design
Possible Careers	Advertising and Promotions Managers, Demonstrators and Product Promoters, Interior Designers, Market Research Analysts, Marketing Managers, Real Estate Sales Agents, Sales Representatives, Survey Researchers, Travel Guides, and many more
Related Majors	E-Commerce/Electronic Commerce, Fashion Merchandising, International Marketing, Marketing, Real Estate, Sales, Distribution, and Marketing Operations, and many more

Science, Technology, Engineering and Mathematics

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Science, Technology, Engineering and Mathematics. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>A career in science, technology, engineering or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these fields will be involved in planning, managing, and providing scientific research and professional and technical services including laboratory and testing services, and research and development services.</p>
Employment Outlook	There are many challenging educational and training opportunities within the high-skilled world of Science, Technology, Engineering and

	<p>Mathematics. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>A career in science, technology, engineering or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these fields will be involved in planning, managing, and providing scientific research and professional and technical services including laboratory and testing services, and research and development services.</p>
Pathways	<ul style="list-style-type: none"> ● Engineering and Technology ● Science and Mathematics
Suggested Elective Courses	Public Speaking, Anatomy & Physiology, Environmental Science, Introduction to Astronomy, Psychology, Statistics & Probability, Software Applications, Python - Introduction to Programming, Android Mobile Apps, AP Computer Science, Computer Aided Drafting, Computer Aided Manufacturing, Engineering, Robotics, Architecture, Innovation and Invention, Technology Systems, World Languages, Foundations of Health & Safety, Career Work Study
Steel Center Career Pathways Options	Electrical Construction, Health Assistants
Possible Careers	Aerospace Engineers, Architectural and Engineering Managers, Biomedical Engineers, Cost Estimators, Drafters, Economists, Hydrologists, Materials Engineers, Nuclear Technicians, Physics Teachers, Software Developers, Statisticians, and many more
Related Majors	Acoustics, Anatomy, Applied Economics, Biomedical Engineering, Cell Physiology, Construction Engineering, Economics, Engineering Mechanics, Evolutionary Biology, Immunology, Industrial Engineering, Mycology, Nuclear Physics, Petroleum Engineering, Photobiology, Polymer/Plastics Engineering, Statistics, Toxicology, Wildlife Biology, and many more

Transportation, Distribution and Logistics	
Description:	<p>There are many challenging educational opportunities within the high-skilled world of Transportation, Distribution and Logistics. Students can begin preparing in high school or middle school. Learners need a solid background in communications, math, science and technology.</p> <p>Along the way, career guidance professionals assist students in assessing their educational goals, interests, abilities and skills to ensure a fit to the cluster's many pathway options. Students can participate in coordinated workplace learning experiences such as site visits, job shadowing, and</p>

	<p>internships. If they choose, they may achieve valuable skill certifications while in high school that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare students for entry-level, professional and technical careers.</p> <p>This diverse Career Cluster exposes students to careers and businesses involved in the planning, management, and movement of people, materials, and products by road, air, rail and water. It also includes related professional and technical support services such as infrastructure planning and management, logistics services, and the maintenance of mobile equipment and facilities.</p>
Employment Outlook	<p>Transportation, distribution and logistics is a critical sector of the United States economy. Over 10 million people are employed in transportation or transportation-related occupations. The Bureau of Labor Statistics projects an increase in employment in this sector through 2024. There will be a growing number of career opportunities in a variety of professional and technical occupations as well as high-paid, entry-level occupations that can provide career advancement opportunities. Median annual wages for these occupations range from \$19,500 for parking lot attendants to \$121,280 for air traffic controllers.</p>
Pathways	<ul style="list-style-type: none"> ● Facility and Mobile Equipment Maintenance ● Health, Safety and Environmental Management ● Logistics Planning and Management Services ● Sales and Service ● Transportation Operations ● Transportation Systems, Infrastructure Planning, Management and Regulation ● Warehousing and Distribution Center Operations
Suggested Elective Courses	<p>Public Speaking, Environmental Science, Economics, Psychology, Statistics & Probability, Software Applications, Exploratory Business, Computer Aided Drafting, Computer Aided Manufacturing, Construction Technology, Engineering, Innovation and Invention, Robotics, Technology Systems, Architecture, World Languages, Adult Living, Career Work Study</p>
Steel Center Career Pathways Options	<p>Automotive Mechanics, Building Trades, Carpentry, Collision Repair and Refinishing, Electrical Construction, Heating, Air Condition, and Refrigeration, Medium/Heavy Truck, Welding</p>
Possible Careers	<p>Air Traffic Controllers, Airline Pilots, Copilots, and Flight Engineers, Commercial Divers, Crane and Tower Operators, Flight Attendants, Occupational Health and Safety Specialists, Production, Planning, and Expediting Clerks, Railroad Brake, Signal, and Switch Operators, Transportation Managers, and many more</p>
Related Majors	<p>Air Traffic Controller, Autobody/Collision Repair, Diesel Mechanics Technology, Mechanic and Repair Technology, Parts, Warehousing, and Inventory Management Operations, Truck Driver/Commercial Vehicle Operation, Vehicle Emissions Inspections & Maintenance Technology, and many more</p>