

A black and white photograph of the Upper Dauphin Area High School. The school building is a long, single-story structure with a flat roof. The words "UPPER DAUPHIN HIGH SCHOOL" are visible on the side of the building. In the foreground, there is a brick pillar and a sign that reads "UPPER DAUPHIN AREA HIGH SCHOOL" and "HOME OF THE TROJANS". There are some bushes and a tall light pole in the foreground.

**UPPER DAUPHIN AREA HIGH SCHOOL**

*2022-2023*  
***PROGRAM OF  
STUDIES***

**"EMPOWERING STUDENTS TO BE  
LIFELONG LEARNERS IN ORDER TO REACH  
THEIR GREATEST POTENTIAL."**

UPPER DAUPHIN AREA HIGH SCHOOL

2022 – 2023

PROGRAM OF STUDIES

Board of School Directors

Price Buffington, President

Steve Welker, Vice President

David Barder

Grant Campbell

Mills Eure

Brian Henninger

Jack Laudenslager

Kimberly Welker

Kirk Wenrich

Administration

Jared W. Shade, Superintendent

Robert L. Miller Jr., High School Principal

# Table of Contents

High School Faculty and Staff .....	4
Nondiscrimination Policy .....	5
School Counseling Services .....	5
Scheduling Procedures.....	6
Student Record Sheet of Subjects, Grades & Credits.....	7
Graduation Requirements and Grace Placement .....	8
Summer Credit Recovery .....	8
Honor Roll Determination .....	9
Graduation with Honors.....	9
Credits .....	9
Graduation Projects .....	9
Keystone Exams .....	9
Online Learning Courses .....	11
Class Rank.....	11
Grade Point Average .....	11
Dual Enrollment College Courses .....	14
Honors and Advanced Placement Courses .....	17
Course Offerings & Descriptions .....	18
Art Department Course Offerings.....	18
Business Department Course Offerings.....	20
English Department Course Offerings .....	22
Family/Consumer Science Department Course Offerings .....	26
Industrial Arts Department Course Offerings .....	27
Mathematics Department Course Offerings .....	28
Music Department Course Offerings .....	34
Science Department Course Offerings.....	36
Social Studies Department Course Offerings.....	41
Student Assistants .....	46
Student Services .....	48
Wellness/Physical Education Department Course Offerings.....	49
World Language Department Course Offerings .....	51
Career & Technical Education Programs .....	54
CTE - Agriculture & Natural Resources Courses and Pathways .....	55
CTE – Building Construction Trades Course Offerings .....	62
CTE - Communications Technologies Department Course Offerings .....	64
CTE – Diversified Occupations Education Course Offerings .....	69
CTE – Welding Technology Course Offerings .....	70
Department Course Grids .....	72

## High School Faculty and Staff

Todd Ayers	Science
Blake Bowman	Social Studies
Joann Brim	Health / Wellness
Adam Kravatz	Industrial Arts and Engineering
Katie Burian	Family & Consumer Science / Mathematics
Shelli Casner*	Business / Computer
Stephanie Cooper	Inclusion Support Aide
Elaine Cramer	Humanities / Instrumental Music / Vocal Music
Erica Crum	Spanish
Nicole Czaplicki	Secondary Instructional Coach
Jill Davis	Special Education
Jim Davis	Building Trades
Janet Denlinger	Library
Mark Dietrich	Agri-Science
Eric Fite*	English
Russ Gavalis	Mathematics
Amy Gehring	Cooperative Education / Special Education
Clint Gehring	School Counselor
Bridget Glunz-Wenner	Life Skills Support Teacher
Heather Haupt	Student Services Director
Jesse Heath*	Mathematics / Science
Craig Henninger*	Social Studies
Jan Hoffner*	Mathematics
Brian Hoover	Health / Wellness
Shelly Johns	Personal Care Assistant (PCA)
Lora Kerwin	English
Becci Mauser	High School Secretary
Robert Miller Jr.	High School Principal
Cynthia Minnich	English/CAOLA Language Supervisor (French, German)
Emily Nell	Art / Humanities
Lora Nestor	School Counselor
Jackie O'Neill	Inclusion Support Aide
Chris Paul	High School Secretary
Jane Pianovich	Nurse
Brooke Runkle*	Special Education
Todd Rupp	Business / Computer / Yearbook
Marcia Schell	Athletic Department Secretary / Guidance Department Secretary
Elijah Shutt	Social Studies
Todd Smeltz	Mathematics / Science
Raquel Smith	Inclusion Support Aide
Rose Snyder	Life Skills Support Aide
Melissa Sorensen	English
Roseane Straub	Personal Care Assistant (PCA)
Jeanie Stine	Personal Care Assistant (PCA)
Heather Wasson	Agri-Science
Patty Weaver	Science
Adeline Wolfe	Mathematics
Diane Wolfgang	Inclusion Support Aide

\*designates Department Head

## Nondiscrimination Policy

The Upper Dauphin Area School District is an equal opportunity education institution and will not discriminate in its educational programs, activities, or employment practices on the basis of race, color, national origin, sex, age, religion, ancestry, disability, union membership or other legally protected classification. Announcement of this policy is in accordance with state and federal laws, including Title VI, Title IX, Section 504 and the Americans with Disabilities Act.

For information regarding 1) civil rights, 2) grievance procedures, 3) service, activities and facilities that are accessible to and useable by disabled persons, or 4) employee or participant complaints of harassment or discrimination, contact Jared Shade, The Section 504 Compliance Office, 5668 State Route 209, Lykens, PA 17048. For Title IX (Sex Equity) issues please contact Amie Savidge (717-362-6547) (Title IX Coordinator) for information at the same address.

Federal Drug-Free Workplace Act requires that our workplace be totally free of illegal use of drugs and requires that we issue the following statement: No one is allowed to use, make, sell, distribute or have in his/her possession and illegal drugs. Any violation of the Act will lead to severe disciplinary action, which will normally include dismissal.

## School Counseling Services

The high school counseling department implements a team approach to integrating counseling within the school curriculum. The counselors collaborate with administrators, faculty and parents to ensure positive social and academic development for all students. The role of the counselor is to guide, advise, recommend, consult, and assist with the nearly limitless variety of concerns that students, parents, school staff, and the community may have. Specifically, the thrust of the counseling program at Upper Dauphin Area High School is defined by three major goals:

1. Students will exhibit personal and academic growth. Students will learn how to cope with stress, how to study, and how classroom behavior affects academic achievement. Counselors will work with parents and school staff to ensure that students are reaching their personal and academic potential.
2. Students will develop effective educational and career decision-making skills. The counseling department utilizes a variety of programs to promote career development such as interest inventory testing, PSAT testing, career inventories, college and vocational mini-fair, alumni-breakfast with panel discussions, individual counseling and assessment, as well as career –focused classroom guidance sessions. Students are encouraged to visit the career library to learn more about college and vocational programs.
3. Students will develop interpersonal skills such as learning how to resolve conflicts. Counselors help students develop communication skills to empower them to make their own healthy decisions. Individual counseling sessions are supplemented by group and classroom guidance counseling sessions.

## Scheduling Procedures

The following is an outline of suggested scheduling procedures which will aid the student in selecting the most appropriate course of study. Parents and/or guardians are urged to be involved and to assist their child(ren) in the important task of program and course selection.

1. Review graduation requirements to ensure that all required courses are selected (minimum of 25 credits).
2. Review the recommended sequence of courses for each of the programs as listed on the following pages.
3. Carefully read the course descriptions as listed in the Program of Studies, located on the high school website, including any required pre-requisites.
4. Discuss any concerns about your educational program with your school counselor.
5. Upon receiving your course selection sheet, carefully read all instructions, paying particular attention to specific course selection approval procedures.
6. Discuss course selections with your teachers and parents/guardians and obtain the necessary signatures.
7. Be sure to complete course selection sheets as per the instructions and return by the established deadline.

Please Note:

Sometimes a student's requested course cannot be honored, nor are they appropriate for a variety of reasons. **Past performance on state tests, benchmarking assessments, teacher recommendations and grades will be considered to make scheduling decisions.**

To guarantee that graduating seniors have the required courses, seniors will be scheduled for electives before underclassmen.

Critical decisions affecting course offerings, class size, teacher assignments, high school staffing and budget expenditures are made on the basis of student selections during the scheduling process.

Parents/Guardians are advised that many factors are involved in the scheduling process. When scheduling courses, all students need to make careful and informed decisions. Making changes in the Fall will only include those deemed necessary by the administration. Remember, selecting courses is very serious and can be complicated; therefore, it is important for each student to follow the scheduling procedures identified above. No classes will be dropped after 5 school days at the start of each semester.

### **ATTENTION TO THOSE SEEKING TO PLAY SPORTS IN COLLEGE**

There are special requirements for students who wish to play sports in college at the Division II and Division I level. This includes requirements on the number of credits in certain subjects. Not all courses taken at Upper Dauphin Area will count towards these requirements. In addition, the grade point average calculation for those entering college athletics may be different from the grade point average calculated at Upper Dauphin Area. At a minimum, those wishing to participate in college athletics are **STRONGLY** advised to request a meeting with their guidance counselor prior to scheduling for their junior year for the specific purpose of reviewing college requirements, reviewing current transcripts, and discussing courses that are needed during their junior and senior years. Asking for a meeting during your freshmen or sophomore year is advisable if students already know they plan to participate in college athletics. The guidance counselor will include athletic representatives in the meeting to help explain the requirements of playing college sports, and to help determine a pathway for their remaining time in high school.

Student Record Sheet of Subjects, Grades & Credits

Use this paper to plan your program of study for each grade. Fill in the name of your elective subjects, the number of credits earned, and the final grades achieved.

KEEP THIS PAPER FOR FUTURE REFERENCE AND PLANNING

Grade 9

<u>Course</u>	<u>Grade</u>	<u>Credit</u>
English I	_____	1
Math	_____	1
Science Block or (H) Biology	_____	1 to 1.5
Modern World History	_____	1
Wellness	_____	1
Electives	_____	<u>2.5 to 3</u>
Maximum Credits	_____	= <b>8</b>

Grade 10

<u>Course</u>	<u>Grade</u>	<u>Credit</u>
English II	_____	1
Math	_____	1
Science	_____	1 to 1.5
American History I	_____	1
Wellness	_____	1
Electives	_____	<u>2.5 to 3.0</u>
Maximum Credits	_____	= <b>8</b>

Grade 11

<u>Course</u>	<u>Grade</u>	<u>Credit</u>
English III	_____	1
Math	_____	1
Science	_____	1
American History II	_____	1
Wellness	_____	.5
Electives	_____	<u>3.5</u>
Maximum Credits	_____	= <b>8</b>

Grade 12

<u>Course</u>	<u>Grade</u>	<u>Credit</u>
English IV	_____	1
Math (Elective)	_____	1
Social Studies (Elective)	_____	1
Electives	_____	<u>5.0</u>
Maximum Credits	_____	= <b>8</b>

## Graduation Requirements and Grace Placement

In order to be eligible for graduation from Upper Dauphin Area High School a student must have successfully passed twenty-five (25) credits in grades nine through twelve which must include the following:

SUBJECT AREA	NUMBER OF REQUIRED CREDITS
English	4 credits
Mathematics	4 credits
Science	3 credits
Social Studies	4 credits
Health & Physical Education	2.5 credits
Electives	7.5 credits
TOTAL of	25 CREDITS

The placement of a student in a particular grade is based upon the following minimum credit requirements:

PROMOTION:	CRITERIA
To Grade 9	Promotion from grade 8
To Grade 10	Passing 5 graduation credits
To Grade 11	Passing 11 graduation credits
To Grade 12	Passing 17 graduation Credits

## **SENIORS - LATE ARRIVAL OR EARLY DISMISSAL**

Seniors who require 7 credits or less may waive a first or eighth period study hall, provided they are passing all subjects. This opportunity of late arrival or early dismissal will be revoked if the student exceeds 10 days of absences.

## Summer Credit Recovery

Credit Recovery is available to any student who fails a major subject with a final grade of 50% or higher. A maximum of 2 credits can be taken during summer school to make up courses that were failed during the school year with special permission from the principal. The principal has discretion to allow additional credit recovery opportunities.



## Honor Roll Determination

The school year is divided into four report periods or quarters, each of which is nine weeks in length. Each quarter, the Upper Dauphin Area High School issues an honor roll of students who have met the established requirements. The purpose of the honor roll is to recognize student efforts and encourage better grades. A grade of 'D' or 'F' during any quarter eliminates the possibility of honor roll status for that grading period. Incomplete work in any subject will keep a student off the honor roll. The honor roll requirements are as follows:

Distinguished Honor Roll: All 'A's

Honor Roll: All 'A's and 'B's

## Graduation with Honors

Overall graduation with honors is attained when a student earns a cumulative (weighted) GPA of at least 3.50 or higher. In addition, National Honor Society members are recognized at graduation by maintaining a cumulative (weighted) GPA of at least 3.50 or higher.

## Credits

Credit value for courses is assigned purely on the basis of student-teacher contact time and has no relationship to their absolute or relative difficulty.

Course credit value is assigned as follows:

1 Credit Courses: Course has 180 student-teacher contact periods scheduled.

½ Credit Courses: Course has at least 90 student-teacher contact periods scheduled.

¼ Credit Courses: Course has at least 45 student-teacher contact periods scheduled.

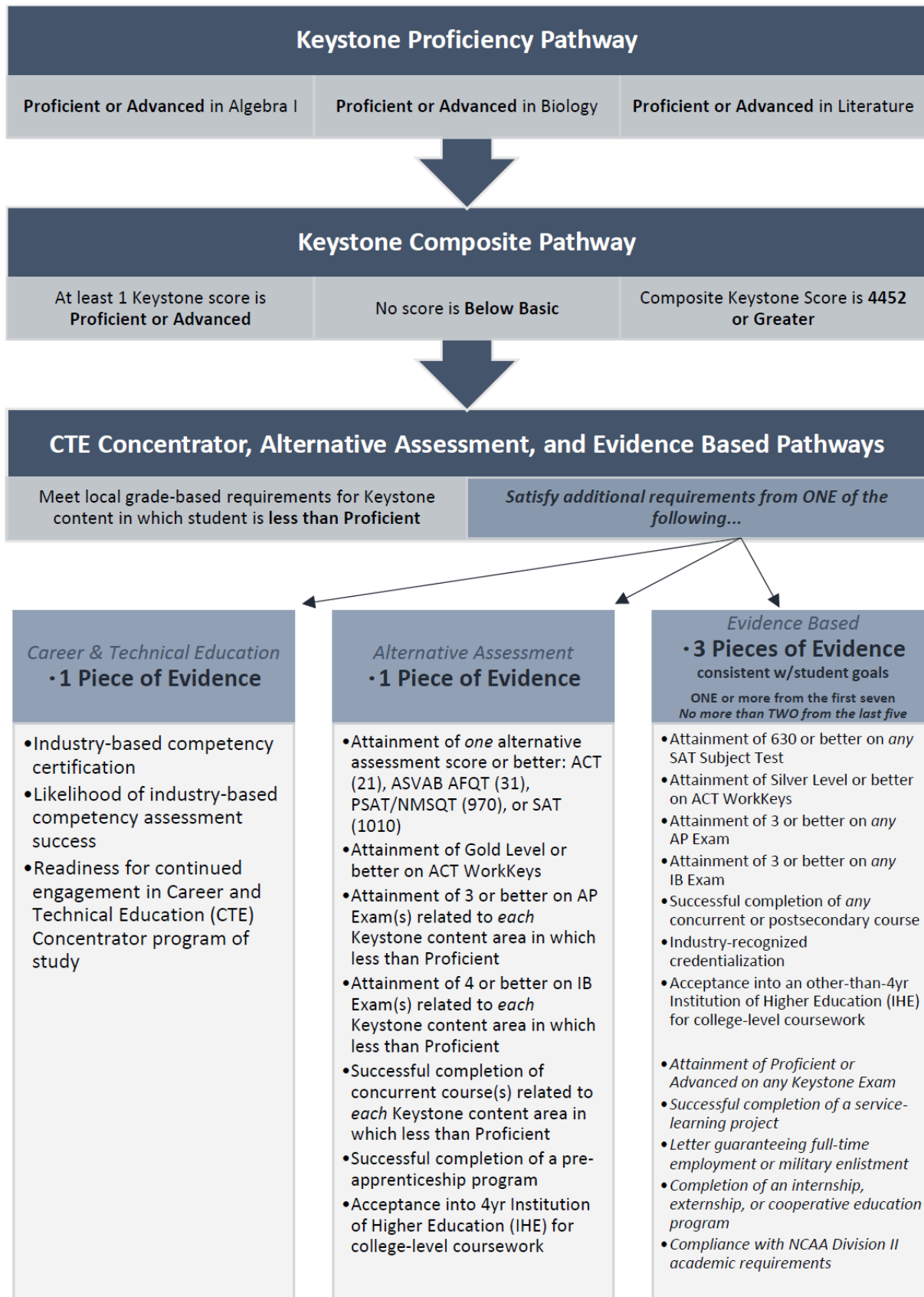
## Graduation Projects

In addition to credit requirements, all students must meet PDE Career education standards by completing activities in the Smart Future's Program by the end of the junior year students must have 13 career artifacts saved in their online career portfolios in Smart Futures. These activities are completed during Discovery classes. The research saved in Smart Futures should be used in the senior class career research paper. The research saved in the Smart Futures Program will be used for the senior English Class research paper.

## Keystone Exams

The Keystone Exams are end-of-course assessments designed to measure proficiency in the subject areas of Algebra I, Literature, and Biology. Students are required to take each of the Keystone exams. There are four established performance levels which include Advanced, Proficient, Basic, and Below Basic. The scores determine the school's rating on the School Performance Profile website. Students must meet one of the ACT 158 Pathways to meet the state graduation requirements. (See the chart).

# Act 158 Pathway Graphic



## Online Learning Courses

Upper Dauphin Area School District is committed to providing varied opportunities for students to excel through the use of online learning courses. UDA High School can offer a variety of courses through contract service provider. These courses can be offered during the normal school day or during the summer to allow students an opportunity to take classes that may not be offered in the traditional classroom. They will also allow for fewer scheduling conflicts. Students will be required to have a strong academic background and principal approval.

### Class Rank

Class rank is calculated using total quality points, which is determined by multiplying GPA by credits earned.

### Grade Point Average

A student's Grade Point Average is determined by a student's cumulative average of all courses taken in grades 9 through 12.

The mechanics of calculating grade point average involve multiplying each course's numerical points (see below) by its credit value (1 credit,  $\frac{1}{2}$  credit, or  $\frac{1}{4}$  credit) and dividing the sum of all the quality points by the sum of all credits attempted.

In order to challenge our students, a select number of AP, Honors, and Dual Enrollment courses will be designated for an alternative system of grade point average calculations. Specifically, courses designated "AP", "Honors" or "Dual Enrollment" will use the following grade equivalents when determining a student's grade point average.

\*Please Note: A grade lower than a 'B-' (85%) will not be weighted.

Letter Grade	Percentage	Regular Course	Dual Enrollment/ Honors Course	AP Course
A+	99 – 100	4.00	4.25	4.50
A	95 – 98	4.00	4.25	4.50
A-	93 – 94	3.67	3.92	4.17
B+	91 – 92	3.33	3.58	3.83
B	87 – 90	3.00	3.25	3.50
B-	85 – 86	2.67	2.92	3.17
C+	83 – 84	2.33	2.33	2.33
C	77 – 82	2.00	2.00	2.00
C-	75 – 76	1.67	1.67	1.67
D+	73 – 74	1.33	1.33	1.33
D	67 – 72	1.00	1.00	1.00
D-	65 – 66	0.67	0.67	0.67
F	0 – 64	0.00	0.00	0.00
*I – used when a student has not completed work	0.00	0.00	0.00	0.00

\*Incomplete grades must be finalized no later than the middle of the following marking period.

## Grade Point Average (continued)

BELOW ARE EXAMPLES DESIGNED TO ILLUSTRATE THE EFFECT ON GPA

### (EXAMPLE #1 – No Honors Courses)

Subject	Grade		Credit value		Quality Points
Academic English IV	A+ = 4.00	X	1.0	=	4.00
Statistics	A = 4.00	X	1.0	=	4.00
CP Physics/Lab	B = 3.00	X	1.5	=	4.50
Freedom	B+ = 3.33	X	.5	=	1.67
Intro to Economics	A = 4.00	X	.5	=	2.00
Art	A- = 3.67	X	.5	=	1.84
Spanish II	B = 3.00	X	1.0	=	3.00
Greenhouse	A = 4.00	X	.5	=	2.00
Video Production	B = 3.00	X	.5	=	1.50
Music Technology	A = 4.00	X	.5	=	2.00
TOTALS:			7.5		26.51

Grade Point Calculation = 26.51 Quality Points divided by 7.5 credits attempted = 3.53 GPA

### (EXAMPLE #2 – taking a Dual Enrollment Course)

Subject	Grade		Credit value		Quality Points
Academic English IV	A+ = 4.00	X	1.0	=	4.00
Statistics	A = 4.00	X	1.0	=	4.00
CP Physics/Lab	B = 3.00	X	1.5	=	4.50
Freedom	B+ = 3.33	X	.5	=	1.67
Intro to Economics	A = 4.00	X	.5	=	2.00
Art	A- = 3.67	X	.5	=	1.84
Spanish II	B = 3.00	X	1.0	=	3.00
PC Intro to Web Page	A = 4.25	X	.5	=	2.13
Video Production	B = 3.00	X	.5	=	1.50
Music Technology	A = 4.00	X	.5	=	2.00
TOTALS:			7.5		26.64

Grade Point Calculation = 26.64 Quality Points divided by 7.5 credits attempted = 3.55 GPA

## Grade Point Average (continued)

### (EXAMPLE #3 – taking an Honors Course)

Subject	Grade		Credit value		Quality Points
Academic English IV	A+ = 4.00	X	1.0	=	4.00
Honors Calculus I	A = 4.25	X	1.0	=	4.25
CP Physics/Lab	B = 3.00	X	1.5	=	4.50
Freedom	B+ = 3.33	X	.5	=	1.67
Intro to Economics	A = 4.00	X	.5	=	2.00
Art	A- = 3.67	X	.5	=	1.84
Spanish II	B = 3.00	X	1.0	=	3.00
Greenhouse	A = 4.00	X	.5	=	2.00
Video Production	B = 3.00	X	.5	=	1.50
Music Technology	A = 4.00	X	.5	=	2.00
TOTALS:			7.5		26.76

Grade Point Calculation = 26.76 Quality Points divided by 7.5 credits attempted = 3.568 GPA

### (EXAMPLE #4 – taking an AP Course)

Subject	Grade		Credit value		Quality Points
Academic English IV	A+ = 4.00	X	1.0	=	4.00
Honors AP Calculus II	A = 4.50	X	1.0	=	4.50
CP Physics/Lab	B = 3.00	X	1.5	=	4.50
Freedom	B+ = 3.33	X	.5	=	1.67
Intro to Economics	A = 4.00	X	.5	=	2.00
Art	A- = 3.67	X	.5	=	1.84
Spanish II	B = 3.00	X	1.0	=	3.00
Greenhouse	A = 4.00	X	.5	=	2.00
Video Production	B = 3.00	X	.5	=	1.50
Music Technology	A = 4.00	X	.5	=	2.00
TOTALS:			7.5		27.01

Grade Point Calculation = 27.01 Quality Points divided by 7.5 credits attempted = 3.601 GPA

## Dual Enrollment College Courses

### Online or On Campus at HACC or Lackawanna College Open to Juniors and Seniors

“Dual Enrollment” with HACC or Lackawanna College allows high school students to enroll in college-level courses offered by a college and simultaneously earn credit toward high school graduation. Courses are usually taken online with HACC or Lackawanna College but students can choose to attend classes at the HACC campus. These courses must be college level courses of 100 or higher. College level remedial or developmental courses do not qualify. Students must meet the criteria set by the colleges to qualify for their courses. This often includes placement testing, SAT scores and current grades.

To receive high school credit for a college course students must receive approval from the school counselor prior to enrolling in a college course. The college application process must be completed with your school counselor by May for Fall online courses and December for Spring courses. To earn UDA credits students must e-mail their college classes to their counselor before the first day of school for Fall classes and before the first day of the second semester for Spring courses.

No student is permitted to receive more than 8 credits in a school year. Students who want to receive dual enrollment may not substitute high school credits for dual enrollment credits. A 3 credit college course is equal to 1 Upper Dauphin credit. Students must earn a grade of ‘A’ or ‘B’ to receive weighted dual enrollment GPA calculations. To earn UDA credits the student must supply Upper Dauphin with an official final transcript from the college by January 1<sup>st</sup> and May 15<sup>th</sup> each UDA will give the same letter grade to the student which was given by the college.

Below are the options for taking online or on campus DE classes with HACC or Lackawanna:

1. Full time dual enrollment – students who take 3 college classes for a minimum of 9 college credits have the option to schedule additional UDA classes or only take dual enrollment courses without scheduling any UDA courses.
2. Part time dual enrollment – students who take 2 college classes for a minimum of 6 college credits have the option to attend UDA part time for a minimum of 4 periods per day. If a student takes 1 college course they must attend UDA full time with a study hall to substitute for the 1 college course.

**STUDENTS ARE RESPONSIBLE FOR ALL TUITION COSTS, BOOKS, TRANSPORTATION AND FEES THAT ARE CHARGED BY THE COLLEGE OR UNIVERSITY.** HACC offers students in the high school the opportunity to take online or on campus classes at the cost of \$382 per 3 credit course. Lackawanna College offers students in grades 11 & 12 the opportunity to take classes at the cost of \$300 per 3 credit course plus the cost of the book.

The transfer of college credits earned through the dual enrollment program is at the discretion of the receiving college or university. When students make a final decision on the college they will attend, the student must request a transcript from the college/university through which a dual enrollment class was taken for review of transfer credit.

College in the High School  
Partnerships with Penn College, HACC, Harrisburg University & Lakawanna  
Penn College Now – Partnership  
10<sup>th</sup>- 12<sup>th</sup> Grade Students

UDA high school has developed a partnership with the Pennsylvania College of Technology to offer qualified students the chance to earn Penn College credits while in high school. These courses are taught by approved UDA teachers. UDA credit values are assigned to the classes by the Upper Dauphin program of studies. Penn College will provide college credits for the classes independent of the UDA credits. The courses are tuition free but students must pay for the required textbooks.

All college in the high school courses will be weighted as dual enrollment unless otherwise noted below. It is very possible that the Penn College grade may be different from the Upper Dauphin grade for the same class. This is because Upper Dauphin teachers may require more assignments and tests than Penn College but those assignments and tests may not factor into the Penn College official grade. Only assignments and tests created by Penn College can be factored into the PC grade.

Students interested in taking these courses must meet the prerequisites to take the course and have an overall minimum GPA of 2.0 or higher. SAT scores can be sent to Pennsylvania College of Technology (#2989) in lieu of placement scores if they are high enough. Scores must be sent from the student's College Board account.

The transfer of college credits earned through the dual enrollment program is at the discretion of the receiving college or university. When students make a final decision on the college they will attend, the student must request a transcript from the college/university through which a dual enrollment class was taken for review of transfer credit.

Below is the list of courses offered at UDA high school in the 2022-2023 school year.

**THESE PENN COLLEGE COURSES ARE APPROVED FOR STUDENTS IN GRADES 10, 11 & 12:**

**(PC6105) Introduction to Business MGT 105** - (3 college credits, .5 high school credit) - Mrs. Casner.  
Prerequisite – minimum 2.0 GPA

**(PC2100) Fundamentals of Chemistry CHM 100** - (4 college credits, 1 ½ high school credits) – Mr. Smeltz.  
Prerequisites –Minimum 2.0 GPA and 'C' or better in Algebra 1  
Successful completion of Algebra I

**THESE PENN COLLEGE COURSES ARE APPROVED FOR STUDENTS IN GRADES 11-12:**

**(PC6150) Honors Introduction to Web Page Development BWM 150** - (3 college credits, 1 high school credit) - Mr. Rupp –  
Prerequisites – 2.0 GPA & 'C' or better in Algebra 1

**(PCCSC132) Introduction to Gaming and Simulation (Honors Weighted)** – (3 college credits, 1 high school credit – Mr. Heath  
*Prerequisites: 2.0 overall GPA or higher*

**(PC2104) Basic Medical Terminology MTR104** - (3 college credits, .5 high school credit) - Mr. Ayers  
*Prerequisites: 2.0 GPA and 'B' or better in Anatomy and Biology*

**(PC6160) Introduction to Programming CIT 160** – (3 college credits, 1.0 high school credit) – Mr. Heath  
Prerequisites – 2.0 GPA and a 'B' or better in Precalculus  
AND Algebra Placement Exam (score 4) OR SAT Math Score of 580

**THESE PENN COLLEGE COURSES ARE APPROVED FOR STUDENTS IN 12<sup>TH</sup> GRADE:**

**(PC6120) Social Media in Business & Society BIM120** - (3 college credits, .5 high school credit – Mrs. Casner

Prerequisites – Minimum 2.0 GPA

**(PC0111) Honors English 111** - (3 college credits or 1 high school credit) - Mrs. Minnich

*Prerequisite: Minimum 2.0 GPA*

*Writing Placement exam OR SAT Writing Score of 28.*

**Additional College in the High School Programs**

**HACC PARTNERSHIP**

- UDA teachers will provide the grades and follow the UDA grading scale

**This course is approved for students in grades 11-12 who pass the HACC placement test:**

**\*\*Please note:** Students are fully responsible for the tuition of \$225 and the cost of textbooks.

**(6438) HACC CIS 105** – (3 college credits, .5 high school credit) - Mrs. Casner (Tuition\$225)

**HARRISBURG UNIVERSITY PARTNERSHIP**

- UDA teachers will provide the grades and follow the UDA grading scale.

**These courses are approved for students in grades 11-12 who meet the prerequisites**

Students are fully responsible for the tuition of \$300 and the cost of textbooks.

**(HU1120) Harrisburg University Math 120 College Algebra** - (3 college credits, 1 high school credit) –

(Tuition=\$300)

Prerequisites: Completion of Precalculus or higher with a 'C' or better with teacher signature

**(HU1220) Harrisburg University Math 220 AP Calculus II** - (3 college credits, 1 high school credit) – (Tuition=\$300)

Prerequisite: Seniors with a final grade of 'B' or better in Calculus I Teacher's signature is required.

**LACKAWANNA COLLEGE PARTNERSHIP**

- UDA teachers will provide the grades and follow the UDA grading scale. Students have the choice to pay \$300 for the Lackawanna credits or not pay the tuition and only take them for UDA credit.

**These courses are approved for students in grades 11 – 12 who meet the prerequisites**

Students are fully responsible for the tuition of \$300 and the cost of textbooks.

**(LC3550) Lackawanna College Psych 105 Intro to Psychology** – (3 college credits, ½ high school credit) – (Tuition=\$300)

**(LC3043) Lackawanna College Soc 105 Intro to Sociology** – (3 college credits, ½ high school credit) – (Tuition \$300)

Prerequisite: Pending teacher approval



## Honors and Advanced Placement Courses

The following courses will be scheduled for the school year - if enrollment permits:

English: Honors English I  
Honors English II  
Honors English III  
AP English – Grade 12 [AP Test strongly encouraged] OR Honors English 12 Penn College

These courses cover the same broad curriculum areas as their academic-level counterparts. The difference in instructional approach and expectations will require greater in-depth analysis and discussion; increased essay writing; greatly increased reading.

Mathematics: Honors Algebra II – Grades 9 – 10  
Honors Geometry – Grades 9 – 10  
Honors Precalculus – Grades 10 – 12  
Honors Calculus I – Grades 11 – 12  
AP Calculus II – Grade 12 [AP Test strongly encouraged]

This four-year progression of mathematics courses is an accelerated program of studies. The Calculus II course is a preparation for the Advanced Placement Examination.

Music: Honors Advanced Music Theory – Grades 11 – 12

Social Studies: Honors Modern World History – Grade 9  
Honors American History I – Grade 10  
AP United States History – Grade 11 [AP Test strongly encouraged]  
Honors Humanities 100 – Grades 11 & 12  
Honors HUM 101 Modern Culture and the Arts – Grade 12  
(Honors Humanities 100 and 101 are offered on a sequential basis)

Science: Honors Biology with Lab – Grade 9  
AP Biology with Lab – Grade 12 [AP Test strongly encouraged]  
Honors Electricity & Magnetism – Grades 11 – 12  
Honors Waves, Sound & Optics – Grades 11 – 12  
Honors Advanced Chemistry – Grades 11 – 12

World Languages:  
Honors French IV – Grade 12  
Honors Spanish IV – Grade 12  
Honors Independent Spanish V – Grade 12  
Fourth-year study of world languages will remain honors courses.

Information Technology:  
Penn College BWM150: Introduction to Web Page Development – Grades 11 – 12  
Penn College MGT105: Introduction to Business – Grades 10 – 12  
Penn College CIT160: Introduction to Programming – Grades 11 – 12  
Penn College BIM120: Social Media in Business & Society – Grades 12

**ALL HONORS AND ADVANCED PLACEMENT COURSES ARE OFFERED SUBJECT TO TEACHER RECOMMENDATION AND WILL BE OFFERED AS ENROLLMENT PERMITS.**

Course Offerings & Descriptions  
Art Department Course Offerings

**(7830) Studio (A/B)**

Grades 9 – 12                      ½ credit A or B days – full year

**(7831) Studio Art (Semester)**

Grades 9 – 12                      ½ credit – 1 semester

**(7832) Studio Art (Full Year)**

Grades 9 – 12                      1 credit – full year

Recommended Prerequisite: Strong desire and commitment to exploring the basics of art.

The first year in the Studio Art course is divided into two general units, Basic Drawing and Color Theory, designed to afford the student a basic background foundation for more advanced art courses available in the following years. Students beginning the second semester will need to take the first semester the following year before entering advanced portion of Studio Art.

After the initial Basic level, interested students may move on to the more advanced offerings available to them on an independent basis as scheduled by the instructor. Each of the following courses lasts for one marking period, except oil painting which lasts for one semester.

Advanced Studio Art is a workshop comprising numerous areas of study in a suggested sequence. Students are encouraged to take several years of advanced art.

- A. Life Drawing: This is a two-part advanced drawing course focusing upon the student's ability to draw from life, i.e. portraiture and anatomy. Media to be employed will be pencil, chalk, charcoal, and/or pastels.
- B. Nature Drawing: This advanced drawing course develops the student's ability to draw from nature. Composition will be studied in great detail. A variety of media employed consists of pencil, pen and ink, and brush. A sketchbook may be a required part of this course.
- C. Introduction to Watercolor: This introductory course is designed to present the basic techniques of transparent watercolor to the student, along with background knowledge of materials and paper. A still life will be used as subject matter.
- D. Advanced Watercolor: This advanced studio course stresses the development of an individual style of painting with emphasis on the Brandywine technique. Subject matter is traditional and based upon an original study of nature. Interested students may also do floral studies.
- E. Ceramics: This is a studio course designed to explore the more advanced forms of clay work. Areas of concentration will be both hand-built and wheel-thrown pottery (for the advanced). Emphasis will be placed on learning to use different and new types of tools and processes including glazing and kiln firing. The class may be repeated to work on throwing pottery on the wheel.
- F. Graphics: This advanced course will afford the student an opportunity to explore various printing media such as linoleum block and serigraphy when possible.

## Art Department Course Offerings

- G. Calligraphy: This advanced course teaches the student the basic methods of calligraphy and fraktur plus basic layout and design.
- H. Brush Drawing: This course introduces the student to brush drawing using ink or sepia washes. Along with traditional Western techniques, the student may choose to become acquainted with the calligraphic techniques employed by the Oriental cultures, known as Sumi painting.
- I. Art Theory: This two-part theory course is designed to stimulate the more-than-average student and is strongly recommended for any student wishing to follow a post-graduate study of art. The first course is concerned with problems involved with one point perspective, while the second course concerns two-point perspective and its use in both interior and exterior design.
- J. Oil Painting: This studio course develops techniques inherent in oil painting; stylistic differences are studied along with the Flemish and Italian methods. At least one original oil painting is required in a style chosen by the student.
- K. Advanced Drawing: This advanced studio further investigates drawing techniques through a variety of media such as charcoal, chalk, crayon, colored pencil, regular and colored ink, pastels, and/or silver point, when available.
- L. Senior Portfolio: This advanced studio course is specifically geared toward preparing those seniors planning on furthering their art studies at an art school or program at a University. Based upon the expectations of both college art departments and various art schools, it is highly individualized and specific to the needs of the student who will work closely with the instructor on selected areas of weakness. This portfolio course is offered for a full year, with the end product being a finished portfolio ready for presentation and acceptance. It is open only to seniors.

Interested Advance Studio students must follow the following sequence:

Year 1 Nature or Life / Art Theory / Brush or Basic Watercolor / Ceramics

Year 2 Nature or Life / Graphics or Calligraphy / Ceramics / Brush or Watercolor

Year 3 Any course for Independent Study / Oil (1 Semester) / Portfolio (1 full year)

## Business Department Course Offerings

### **(4511) Accounting I**

Grades 10 – 12

1 credit – full year

Accounting is the language of business. Accounting provides instruction in modern record keeping, business terminology, preparation of financial reports, and the application of the complete accounting cycle. Hundreds of career fields require knowledge of Accounting. Modern technology is geared to computer spreadsheet applications on the computer and these are included. It is a prerequisite to all Accounting classes. This course broadens the basic knowledge of single proprietorship/service business accounting. Partnership and corporate accounting are included. Objectives include an understanding and application of accounting concepts and a broader comprehension of theory through the completion of at least two business simulations. This course should be a prerequisite for those pursuing accounting careers or college business administration or any other career field that will require knowledge of accounting and modern business practices.

### **(4513) Accounting II**

Grades 11 – 12

1 credit – full year

Prerequisite: A 'B' or better in Accounting I with teacher approval

This course further broadens the basic knowledge of all business organizational forms with emphasis on the computer as a business tool. A number of simulations will be completed, as well as, additional concepts covered at the college level to include inventories, depreciation of assets, plant and equipment, and payrolls. Extensive use of spreadsheet accounting is used. It is intended as independent study with teacher supervision and advanced placement credit.

### **(4414) Personal Finance**

Grades 12

1 credit – full year

***This course can be used as a math credit, social studies credit or a business elective credit.***

Personal Finance is organized around three themes and mapped around fundamental knowledge and skills needed in these areas to achieve a comfortable level of financial confidence and independence after high school. These themes are: Consumer Economics, Banking and Financial Systems, and Fundamentals of Insurance. Using project-based instruction and real-world situations this course will give students the knowledge and general understanding of all key aspects of personal finances necessary to be successful now and throughout their adult lives. The structure of this class will reflect real-world situations as closely as possible. Students will analyze money systems and make personal decisions about financial goals based on economic climate and employment data. They will look at making reasoned and informed decisions about current and future financial goals. Economics, Reading, Writing, and Speaking Standards are all applied in this course.

### **(4550) Principles of Marketing**

Grades 10 – 12

½ credit – 1 semester

Students explore the roles of business and marketing in the free enterprise system and global economy. You will study how the American economy operates and prepare to make decisions as consumers, wage earners, and citizens.

## Business Department Course Offerings

### **(4570) Sports Entertainment and Marketing**

Grades 10 – 12

½ credit – 1 semester

Students will explore the intriguing world of sports and entertainment from the perspective of marketing. This is an introductory course which will help students develop a thorough understanding of the marketing concepts and theories that apply to sports and sporting events. The course will focus on the Core Marketing Standards of Distribution, Pricing, Product Service Management, Promotion, Selling and Financing. Students will be presented with real world strategies used by successful sports and entertainment marketers. Students will investigate how technology and the internet help marketers work more effectively. The course will explore some common myths that surround advertising and promotion as well as introduce interesting facts and statistics for sports and entertainment businesses. Sports and Entertainment Marketing is a unique and innovative course designed for students with an interest in the sports and entertainment industry.

### **(4580) Essential Skills in the Business World**

Grades 9 – 12

½ credit – 1 semester

This course is a hands on course focused on preparing students for the business world and for college. Students will be taught essential life skill lessons throughout the semester. Students will understand how speech, budgeting and financial management is an essential part of any career choice and is critical for life success. Students will also learn the importance of online safety and how to make a positive digital footprint. Students will create presentations with various presentation tools; engage in a variety of public speeches, interviews, and e-portfolios. Students will use a variety of digital tools to help build organizational skills leading to poise and confidence needed in the business world.

### **(PC6105) Penn College MGT105: Introduction to Business (Honors)**

Grades 10 – 12

½ credit – 1 semester

3 college credits

Prerequisites: Students must purchase their own textbook have a 2.0 GPA.

Introduction to a variety of business concepts and practices that impact all organizations, as well as the knowledge and skills needed to be successful in an organization. Topics include interpersonal communications, emotional intelligence, economics, accounting, and finance and investments. An integrative approach connects topics and provides context within organizational environments, relevance to current business situations, and advances across various fields of business. 3 Credits (3 Lecture - 0 Lab) Sophomore-Approved Course.

## English Department Course Offerings

The goal of the English department is to meet the individual needs of all students in the areas of listening, reading, and writing. The department aims to provide a balance in instruction between the mechanics of language and literature, emphasizing reading comprehension, and critical thinking.

### (0209) Honors English I

Grade 9

1 credit – full year

Prerequisites: Teacher Recommendation and submission of summer work due by first day of new school year.

Honors Ninth Grade English I is a language arts course designed to prepare the student for Honors courses. Since it will involve more work in the form of additional reading, writing assignments, and other enrichment activities, a student considering ninth grade honors should be genuinely enthusiastic and open-minded about reading and responding to various types of literature (poetry, plays, short stories, novels, and non-fiction pieces) by a variety of writers, including at least one Shakespearean play. Honors students will be expected to be willing participants in class discussion and demonstrate his/her understanding of literature through a variety of frequent writing assignments ranging from less formal journal entries to formal essays and research papers.

Honors Ninth Grade English I meets all of the objectives for Academic English I as listed below, but it requires additional and more challenging assignments to meet those objectives.

### (0309) Academic English I

Grade 9

1 credit – full year

Academic English I is a course designed to continue the instruction of grammar, usage, vocabulary, reading and writing skills. Since ninth grade English is designed as an introductory course to the various genres of writing, students will examine the forms of the short story, the novel, prose, poetry, and drama by studying examples of each, including one Shakespearean play. Writing (ranging from less formal journal entries to formal essays and research assignments) and class discussions will be incorporated into these units for students to improve their communication skills. Students will all complete a research paper assignment, focusing on how to do research and effectively use the writing process.

### (0210) Honors English II

Grade 10

1 credit – full year

Prerequisites: Teacher Recommendation, Grade of 90% or better in previous year, and students must also complete a summer reading project of two works from the provided list of authors. **Any student who fails to meet these requirements will NOT be placed in the Honors English II class.**

Honors English II is a language arts course designed to prepare the student for additional Honors courses. As such, this course is designed for students who enjoy reading and writing and for students who wish to be challenged in these areas. Honors English II meets the same objectives as Academic English II, but it requires additional and more challenging assignments to meet those objectives. Special requirements for this course include, but are not limited to, (2) two summer reading choices and reviews, writing assignments, enrichment activities to supplement reading assignments, and class participation.

## English Department Course Offerings

### **(0310) Academic English II**

Grade 10

1 credit – full year

Tenth grade Academic English II is a course which continues a student's learning experiences in grammar, usage, vocabulary, literature and composition. Technical and thematic aspects of the short story, the novel, poetry, and drama are discussed. Writing assignments often integrate the development of communication skills with the study of literature. Videos, class discussions, and individual projects may supplement classroom activities.

### **(0111) Honors English III**

Grade 11

1 credit – full year

Prerequisites: Teacher Recommendation and a Grade of 'B' or better in previous year and submission of summer work by first day of new school year.

Honors English III is a language arts course designed to reinforce students' knowledge of literary expressions and to introduce students to the critical foundations of literature. Appropriate American literature will be discussed following a time line of development. Films, class discussions and group assignments/presentations will augment classroom activities. Extensive reading, writing, speaking (formal and informal), and critical thinking are expectations for the Honors English III student. Honors English III students will complete a packet of summer reading assignments that involve activities that reflect the reading of two assigned books.

### **(0311) Academic English III**

Grade 11

1 credit – full year

Academic English for juniors will explore the development of American Literature and of American English. Within this study students will apply specific reading strategies to explore early American writings, the American short story, and a variety of literary movements such as Romanticism, Transcendentalism, and Realism. The writing process will be emphasized and utilized to improve written and oral communication skills. Grammar, usage and vocabulary skills will also be further developed within the study of American Literature. Films, class discussions, and individual projects will augment classroom activities.

### **(0112) Business English**

Grade 12

1 credit – full year

Prerequisite: Completion of any 11<sup>th</sup> grade English course

Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. This course provides students with the methodology needed to construct and to deliver oral presentations, create tables, graphs, and charts, and write a variety of reports and proposals. Students will study common business correspondence, including the correct form and use of business applications, information management, information technology, telecommunications, social media and web writing. Reading and writing of business documents will be emphasized throughout the course. As part of this course, students will also review research and source citation while creating their Senior Career Projects. Students enrolled in Business

English will develop and refine job-related communication skills in reading, writing, speaking, and listening, which are necessary to be successful in a business environment.

### English Department Course Offerings

#### **(PC0111) Penn College Honors English**

Grade 12

1 credit – full year  
3 college credits

Prerequisites: Teacher recommendation, grade 'B' or better in previous school year, submission of assigned summer work on the first day of school, mandatory dual enrollment, student's must purchase their own textbook and pass the required placement exam. Penn College writing placement test or SAT sub score of 28 writing. 2.0 overall GPA or higher.

The first semester of the course will be dual enrollment English Composition course work. Writing and revising 6 – 8 papers in various academic genres in addition to brief response papers. The focus of the second semester will be British authors and their literary works. Background information on the authors and history of the English language will also be incorporated throughout this study. Our literary journey will begin with a brief look at some Anglo-Saxon pieces and will progress through the centuries to a study of "modern classics." As we read these time-honored pieces, we will also reflect on them through written assignments and classroom discussions. Both semesters will be fast-paced and require extensive reading, research and writing. Students will complete all facets of the Senior Career Project as a part of this course.

#### **(0312) Academic English IV**

Grade 12

1 credit – full year

Academic English IV will introduce the development of the English language while focusing on major British authors and their works. Literary devices will be reviewed throughout the literature study, as will the format of a variety of genres. A review of grammar and usage will occur as part of the writing process, and a continuation of vocabulary development will be within the context of the course's literature. As part of this course, students will also review research and source citation while creating their Senior Career Projects. Lastly, films, class discussions and individual projects will complement classroom activities.

#### **(0412) AP English**

Grade 12

1 credit – full year

Prerequisite: Advanced on Literature Keystone Exam and teacher recommendation.

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Students will complete all facets of Senior Career Project as a part of this course.

#### **(0525) Keystone Literature Remediation**

Grade 11

½ credit – 1 semester

*\*\*The ½ credit for this class DOES NOT count as an English credit\*\**



This course is designed for students who DID NOT pass the Literature Keystone Exam. It is intended to reteach and reinforce concepts to prepare students to retake and demonstrate proficiency on the Literature Keystone Exam.

## English Department Course Offerings

### **(0901) Mythology**

Grades 10 – 12

½ credit – 1 Semester

This course is designed to enhance understanding of mythology and its continuing influence on our modern world. Students will study mythology from various cultures, including Greek, Roman, Norse, and possibly others. Participants examine how some themes and character types occur over and over in myths of different cultures. Reading, individual projects/activities, and group work will be part of this class. This course is an English elective, not a replacement for other required English classes.

### **(0905) Creative Writing**

Grades 9 – 12

½ credits – 1 Semester

This course is designed to guide students in creative writing through experience in three genres: short story, poetry, and creative non-fiction. The course includes analysis of literary models (professional writings in each genre), individual and class feedback of work in a workshop mode, and lecture on and discussion of literary techniques in each genre. The culmination of this course is a semester project – a long-term collection of work that the student has focused on creating. This course is an English elective, not a replacement for other required English classes.

### **(0906) Creative Writing**

Grades 9 – 12

1 credit –Full Year

This course is designed to guide students in creative writing through experience in three genres: short story, poetry, and creative non-fiction. The course includes analysis of literary models (professional writings in each genre), individual and class feedback of work in a workshop mode, and lecture on and discussion of literary techniques in each genre. The culmination of this course is a semester project – a long-term collection of work that the student has focused on creating. This course is an English elective, not a replacement for other required English classes.

### **(0709) Transitional English 9**

Grade 9

1 credit

### **(0710) Transitional English 10** (Keystone Literature)

Grade 10

1 credit

### **(0711) Transitional English 11**

Grade 11

1 credit

### **(0712) Transitional English 12**

Grade 12

1 credit

Prerequisite: Prior approval is required.

Provides academic instruction to students who require a small, structured learning environment. The program is designed for students who require an intensive, highly individualized instructional approach.

### **(0805) Functional English 9**

Grade 9

1 credit

### **(0806) Functional English 10**

Grade 10

1 credit

### **(0807) Functional English 11**

Grade 11

1 credit

### **(0808) Functional English 12**

Grade 12

1 credit

Prerequisite: Prior approval is required.

Provides functional academic skills with a modified curriculum that addresses strategies utilized for everyday English skills.

## Family/Consumer Science Department Course Offerings

### **(9215) Basic Cooking and Nutrition**

Grades 9 – 12

½ credit – 1 semester

Basic Cooking and Nutrition is an elective course that allows students to explore sources of nutrients and the body's requirements throughout the lifecycle. They will learn basic kitchen management skills, understanding safety and sanitation as well as recipes and how they can be altered for utilization to meet daily needs. The students will examine the government's role in the food supply and safeguarding our food selection. The USDA Choose My Plate will be utilized to gain knowledge of food and nutrition. There will be extension activities that include food labs to gain experience cooking/baking food.

### **(9220) Foods and You**

Grades 10 – 12

½ credit – 1 semester

Prerequisite: Basic Cooking and Nutrition

The focus of this course is to apply the knowledge gained in the Basic Cooking and Nutrition course to daily living through meal planning and making good consumer decisions. The students will examine how to enhance their food choices through the selection, planning, preparation and serving of meals. Students will be required to participate in food labs to gain experience cooking/baking.

### **(9240) L.I.F.E.**

Grades 10 – 12

½ credit – 1 semester

L.I.F.E., (Lifelong learning, Independence, Family and Economics) is an elective course that gives students the opportunity to learn to manage the challenges of living and working. The course helps to prepare students for independence by examining the main elements of Family and Consumer Science. The students will explore careers and gaining employment, as well as financial and resource management by investigating the necessities of life as consumers and family members. The students will discover effective solutions to issues significant in everyday life as they learn to balance family, work and community responsibilities throughout the lifecycle.

### **(9270) Child Development**

Grades 11 – 12

½ credit – 1 semester

Child Development is an elective course that allows students to gain an understanding of caring for children and aiding in their learning as their needs change physically, intellectually, socially and emotionally. The students will examine the responsibilities and changes involved in their lives when caring for themselves, as well as for a child. They will analyze the financial needs of families, health and safety concerns for themselves and children, as well as balancing daily responsibilities as individuals, family members and community members during this course.

### **(9416) Consumer Strategies**

Grade 9

½ credit – 1 semester

Consumer Strategies is a comprehensive Family and Consumer Science course with an examination of kitchen and nutrition basics, resource and financial management and balancing family, work and community responsibilities along with child care. The students will explore kitchen safety and

sanitation, time management, finances with emphasis on maintaining accounts, consumerism, housing/interior design and child care.

## Industrial Arts Department Course Offerings

### **(8011) Basic Cabinetmaking**

Grades 9 – 12

½ credit – 1 semester

Students learn machine safety, as well as, the basics of cabinet construction. Several smaller projects will be constructed using basic cabinetmaking techniques. Materials fee will be charged.

### **(8311) Intermediate Cabinetmaking**

Grades 10 – 12

1 credit – full year

Prerequisite: Basic Cabinetmaking

Students continue to learn more basic features of cabinets such as drawers and doors. Students will construct one or more pieces of furniture/cabinets that meet course requirements. Materials fee will be charged.

### **(8411) Advanced Cabinetmaking**

Grades 11 – 12

1 credit – full year

Prerequisites: Basic Cabinetmaking & Intermediate Cabinetmaking

Students expand upon previously gained knowledge and experience to design and build large complex cabinets utilizing all the above-mentioned features of modern cabinets.

### **(9330) Engineering Drafting and Modeling I**

Grades 9 – 12

½ credit – 1 semester

Students will learn to incorporate all the basics skills of technical sketching, drafting and parametric modeling, starting with line types and freehand sketching progressing through 3-view drawings, isometric drawings, parametric modeling and detail drawings. Work will be completed on paper and on CAD programs.

### **(9340) Engineering Drafting and Modeling II**

Grades 9 – 12

½ credit – 1 semester

Prerequisite: Engineering Drafting and Modeling I

Students will learn the intermediate skills of technical sketching, drafting and parametric modeling, starting with the continued improvement of freehand sketching for modeling purposes and the creation of parametric models and detail drawings. Work will be completed on paper and on CAD programs.

### **(9318) Architectural Drafting**

Grades 11 – 12

1 credit – full year

Prerequisites: Engineering Drafting

Students learn the basics of light construction principles and then apply their knowledge to design a house using AutoCAD. After the 2 dimensional drawings have been completed, the students then render the drawings to create 3 dimensional views of the house. A scale model of the house is built to provide a concrete, 3-dimensional product of the student's design.

## Mathematics Department Course Offerings

### (1910) Fundamentals of Mathematics

Grade 9

1 credit – full year

Prerequisite: Prior approval is required from the middle school.

This course is designed for 9<sup>th</sup> grade students who are not ready for the Algebra 1A course, but are not suited for Transitional Math 9. This course will focus on fundamental math skills required to be successful in Algebra 1A and 1B. Topics include fractions, decimals, rounding, percentage, order of operation, evaluating expressions, factors, multiples, distributing, slope, equations of lines and solving basic equations. Portions of this course will also be taught without the use of a calculator.

**A scientific calculator is required for much of this course.**

### (1017) Algebra IA

Grade 9

1 credit – full year

Prerequisite: Final grade of 'C' or 'D' in 8<sup>th</sup> grade Pre-Algebra or a final passing grade in Transitional Math with teacher signature.

The Algebra IA course is the first half of Algebra I and is designed to prepare students for more advanced courses in mathematics. The course includes the study of real number operations and applications, linear equations and inequalities, probability, and linear functions. **A scientific calculator is required for this course.**

### (1019) Algebra IB

Grade 10 - 11

1 credit – full year

Prerequisite: A passing final grade in Algebra IA with teacher signature.

The Algebra IB course is the second half of Algebra I to be taken after passing Algebra 1A. This course includes the study of operations with real numbers & expressions, linear equations and inequalities, radicals, polynomials, linear relations and functions, systems of equations and inequalities and data.

**A scientific calculator is required for this course.**

### (1015) Basic Geometry

Grade 11

1 credit – full year

Prerequisite: A passing final grade in Algebra 1B with teacher signature.

The Basic Geometry course will emphasize the concepts of geometry that are most applicable to the workplace, while also concentrating on topics required to meet Pennsylvania state standards. Topics include, but are not limited to, measurement, angles, triangles, polygons, circles, area and volume.

**A scientific calculator is required for this course.**

## Mathematics Department Course Offerings

### (4542) Consumer Mathematics

Grade 12

1 credit - full year

Prerequisite: Teacher signature.

This elective math course is a blend of personal finance and business mathematics. Basic math skills and fundamentals will be reviewed at the start of the course. The first semester will focus on personal finance topics such as gross and net income, checking and saving accounts, sales tax and unit pricing, credit cards, loans, purchasing a car, purchasing a home, types of insurance, and methods of investment. The second semester will focus on mathematical business applications. Topics such as personnel, production, purchasing, sales, marketing, distribution, and accounting will be discussed. **A calculator is required for this course.**

### (1013) Algebra I

Grade 9

1 credit - full year

Prerequisite: A final grade of 'B' or better in 8<sup>th</sup> grade Pre-Algebra with teacher signature.

The Algebra I course will cover the concepts and skills required for success in the higher levels of mathematics. The course content includes units on operations with real numbers and expressions, linear equations and inequalities, radicals, polynomials, linear relations and functions, systems of equations and inequalities and data. **A scientific calculator is required for this course.**

### (1313) Keystone Algebra 1 Remediation

Grades 10 –11

½ credit – 1 semester

*\*\*The ½ credit for this class DOES NOT count as a Math credit.\*\**

This course is required for students who DID NOT pass the Algebra 1 Keystone Exam. It is designed to reteach and reinforce concepts to prepare students to retake the Algebra 1 Keystone Exam.

### (1023) Academic Algebra II

Grades 9 –10

1 credit – full year

Prerequisite: A passing final grade in Algebra I with teacher signature.

This course is a continuation of fundamental algebraic concepts, with an emphasis on the study of functions. It is intended for those students who will continue their education after graduation, but not necessarily in the math and science fields. Topics include systems of linear equations and inequalities, quadratic functions, polynomials, radical and rational functions, and trigonometric functions.

**A scientific calculator is required for this course.**

Note: Geometry or Honors Geometry and Academic Algebra II may be taken concurrently with teacher signature.

## Mathematics Department Course Offerings

### **(1014) Geometry**

Grades 9 – 11

1 credit – full year

Prerequisite: A passing final grade in Academic Algebra II with teacher signature.

The Geometry course will emphasize the concepts of geometry that are required to meet PA Core standards. Topics include, but are not limited to, measurements, angles, triangles, polygons, circles, area, volume and transformations. **A scientific calculator is required for this course.**

Note: Geometry and Algebra II or Honors Academic Algebra II may be taken concurrently with teacher signature.

### **(1024) Precalculus**

Grades 10 - 12

1 credit – full year

Prerequisites: A final grade of 'C' or better in both Academic Algebra II and Geometry with teacher signature.

Precalculus extends topics of Algebra II and Geometry and introduces concepts of trigonometry through a graphing approach. Students can expect a rigorous pace and challenging material.

**A scientific calculator is required for this course.**

### **(1224) Honors Precalculus**

Grades 10 – 12

1 credit – full year

Prerequisites: A final grade of 'A' or better in Honors Algebra II and Honors Geometry with teacher signature.

This course continues the development of the fundamental skills of algebra and trigonometry through a graphing approach. Advanced topics include analytic geometry and limits. Students can expect a highly rigorous pace and challenging material, in addition to advanced homework assignments.

**A scientific calculator is required for this course.**

### **(1118) Honors Calculus I**

Grades 11 – 12

1 credit – full year

Prerequisites: A final grade of 'B' or better in Honors Precalculus with teacher signature.

This course is designed for prospective mathematics majors, as well as those students whose primary interests are in engineering, physics, business or the life sciences. Topics include limits, derivatives and their application and techniques of integration and their application.

**A scientific calculator is required for this course.**

## Mathematics Department Course Offerings

### **(HU1120) Math 120 (Harrisburg University) College Algebra**

Grades 11 - 12

1 credit - full year

Prerequisites: Completion of Precalculus or higher with a 'C' or better with teacher signature.

This course is intended for the college-bound student who desires to review algebraic, geometric, and trigonometric principles previously learned. Topics include properties of real numbers, problem-solving using equations and inequalities, algebraic functions, graphing, systems of equations and inequalities, polynomial functions and graphs, exponents and radicals, the binomial theorem, zeros of polynomials, inverse functions, exponential and logarithmic functions, trigonometry, and applications and graphs. Three credits will be awarded from Harrisburg University for successful completion of this course. Student cost will be \$300 plus textbook cost. **A calculator is NOT PERMITTED for this course.**

### **(1414) Personal Finance**

Grades 12

1 credit – full year

***This course can be used as a math credit, social studies credit or a business elective credit.***

Personal Finance is organized around three themes and mapped around fundamental knowledge and skills needed in these areas to achieve a comfortable level of financial confidence and independence after high school. These themes are: Consumer Economics, Banking and Financial Systems, and Fundamentals of Insurance. Using project-based instruction and real-world situations this course will give students the knowledge and general understanding of all key aspects of personal finances necessary to be successful now and throughout their adult lives. The structure of this class will reflect real-world situations as closely as possible. Students will analyze money systems and make personal decisions about financial goals based on economic climate and employment data. They will look at making reasoned and informed decisions about current and future financial goals. Economics, Reading, Writing, and Speaking Standards are all applied in this course.

## Mathematics Department Course Offerings

### **(HU1220) Math 220 (Harrisburg University)/AP Calculus II**

Grades 11 - 12

1 credit – full year

Prerequisites: Students with a final grade of 'C' or better in Calculus I. Teacher's signature is required.

This course is intended for the accelerated mathematics student. It is designed for prospective college level STEM (Science, technology, engineering, math) interested students.

This course will begin with the curriculum from the Harrisburg University Math 220 Calculus 1 syllabus. This will comprise roughly 50% of the year.

*Math 220: This content presents an introduction to the theory and applications of single variable differential and integral calculus. Three fundamental concepts will be developed: the Limit, the Derivative, and the Integral. Math 220 provides a flexible presentation of calculus incorporating a balance of basic mathematical theory with applications from the sciences and engineering. An introduction to first order differential equations, with applications, will also be presented if time permits. The course emphasizes development of individual problem solving skills and the applications of calculus to all the sciences.*

Once the Math 220 content is completed additional topics will include, but are not limited to, advanced differentiation and integration techniques and applications. The use of a graphing calculator to solve complex calculus problems will also be incorporated. Students who take this course will have the option to take this course for college credit (3) and/or take the AP Calculus AB Exam or merely take it as UDA Calculus 2 without cost. The cost associated with the course if taken for college credit is \$300.

### **(1021) Statistics**

Grade 12

1 credit – full year

Prerequisites: A final grade of 'B' or better in Academic Algebra II or Honors Algebra II with teacher signature.

This course is intended for the senior who will be pursuing a post-secondary education at a college or technical school. This course is most appropriate for students entering fields in nursing, business, education, law, psychology and the social sciences. The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference.

**A scientific calculator is required and a graphing calculator will be provided for this course.**



## Mathematics Department Course Offerings

### **(1114) Honors Geometry**

Grades 9 - 11

1 credit – full year

Prerequisites: A grade of 'A' in Honors Algebra II or Algebra I (if doubling with Honors Algebra II) with teacher signature.

Honors Geometry is an accelerated course designed for those students preparing for higher level mathematics and/or considering a post graduate math/science career. This course differs from the Geometry course in pacing and depth of content. The Honors Geometry course will emphasize the concepts of geometry including, but not limited to, measurement, angles, proofs, triangles, polygons, circles, area, volume, vectors and transformations.

**A scientific calculator is required for this course.**

Note: Honors Geometry and Honors Algebra II or Academic Algebra II may be taken concurrently with teacher signature. This is recommended for students interested in STEM careers.

### **(1123) Honors Algebra II**

Grades 9 - 10

1 credit – full year

Prerequisites: A final grade of 'A' in Algebra I with teacher signature.

Honors Algebra II is an accelerated course that is designed for those students who intend on continuing their studies in Honors Precalculus, Calculus and other higher level mathematics. This course moves at a faster pace than Academic Algebra II class and involves more emphasis on theory, a higher degree of difficulty in problem solving and more enhanced use of the graphing calculator. Topics include an in-depth study of nonlinear functions, specifically quadratic, polynomial, exponential, logarithmic, rational, radical, and trigonometric functions. **A scientific calculator is required for this course.**

Note: Honors Geometry or Geometry and Honors Algebra II may be taken concurrently with teacher signature.

### **(1701) Transitional Math 9**

Grade 9

1 credit – full year

### **(1705) Transitional Math 10**

Grade 10

1 credit – full year

### **(1710) Transitional Math 11** (Keystone Algebra)

Grade 11

1 credit – full year

### **(1715) Transitional Math 12**

Grade 12

1 credit – full year

Prerequisite: Prior approval is required.

Provides academic instruction to students who require a small, structured learning environment. The program is designed for students who require an intensive, highly individualized instructional approach.

### **(1809) Functional Math 9**

Grade 9

1 credit – full year

### **(1810) Functional Math 10**

Grade 10

1 credit – full year

### **(1811) Functional Math 11**

Grade 11

1 credit – full year

### **(1812) Functional Math 12**

Grade 12

1 credit – full year

Prerequisite: Prior approval is required.

Provides functional academic skills with a modified curriculum that addresses strategies utilized for everyday Math skills.

### Music Department Course Offerings

#### **(7916) Foundations of Music Theory**

Grades 10 – 12

½ credit – 1 semester

Prerequisite: One year of experience in high school concert band or choir ensemble/instructor's permission.

This course is designed to develop and expand music theory knowledge, aural, and listening skills that include but are not limited to:

- Reading, writing and identifying patterns in music.
- Ear training
- Rhythmic and melodic dictation.
- Roman numeral analysis of a composition.

#### **(7918) Honors Advanced Music Theory**

Grades 11 – 12

½ credit – 1 semester

Prerequisite: Foundations of Music Theory.

This is a continuation of skills acquired in the Foundations of Music Theory course. Advanced Music theory refines and expands the analytic skills needed to understand how music is put together. Students enrolled in this course will be expected to compose and/or arrange music using techniques studied throughout the course. This is a suggested elective for students preparing for a career in music.

#### **(7900) Choir Ensemble**

Grades 9 – 12

½ credit – full year A/B day

Choir Ensemble is open to all students who enjoy singing. Students will perform a variety of styles of music in mixed, women's, and men's choir settings. Concert attendance is mandatory. Basic knowledge of musical elements and solfege is beneficial, but not required.

#### **(7920) Piano/Keyboard Technique**

Grades 9 – 12

½ credit – 1 semester

Piano/Keyboard Technique is a hands-on learning experience designed to sequentially instruct students at all levels on skills specific to playing the piano. This course moves at a different pace for each student. This course may be taken one period per semester. Students are encouraged to take several semesters of piano to build and develop skills and musicianship.

#### **(7902) Concert Band**

Grades 9 – 12

½ credit – full year A/B day

Prerequisite: Successful completion of Book 1, knowledge of and facility with Concert F, B-flat, E-flat and A-flat key signatures, basic rhythmic fluency, and at least one year of middle school band.

Concert Band allows students the opportunities to perform a variety of styles of music within various ensemble and solo settings. Students will be required to attend group or individual lessons as scheduled. Concert attendance, including graduation, is mandatory.

## Music Department Course Offerings

### **(7909) Instrumental Musicianship**

Grades 9 – 12

½ credit – 1 semester

Prerequisite: At least one year of middle or high school band or choir ensemble.

Instrumental Musicianship is designed for students who have some previous music instruction and want to expand their knowledge of other instruments. This course will allow students to study the woodwind, brass and percussion families and become familiar with each band instrument through instruction on instrument-specific sound production and fingerings. Students will be expected to perform in solo and ensemble settings throughout the duration of the semester.

### **(7980) Music Appreciation**

Grades 9 – 12

½ credit – 1 semester

This course is intended to expose students to the many facets of music and explore the role of music in students' individual lives. Units include, but are not limited to: World Music, Music as Identity, and the Evolution of Popular Music. These units will cover artists, styles and characteristics associated with the topic.

### **(7990) Broadway Musical Productions**

Grades 9 – 12

½ credit – 1 semester

This course will explore the evolution of Broadway musicals from their origins in opera through today's hits. Students will explore functions of music and lyrics, character development, and other elements of a musical, and compare texts with interpretations in live and video productions. This course will also cover stage terminology, vocal and movement training, acting, and aspects of technical production including stage design, lighting design, sound reinforcement, costuming, and makeup.

### **(7950) Advanced Music Study**

Grades 11 – 12

½ credit – 1 semester

Prerequisite: At least two years in high school concert band/choral ensemble or the instructor's permission.

This course is designed to help students prepare audition requirements for a university music program. We will concentrate on developing independent practice skills, preparing music for advanced levels of performance, listening to and learning from expert performers, and sight-reading. Students will prepare for weekly lessons and perform a recital at the conclusion of the semester.

### **(7945) Independent Music Study**

Grades 9 – 12

½ credit – 1 semester

This course is designed for students enrolled in concert band and/or choral ensemble. Students will develop practice skills, prepare music for individual or group lessons and performance, and play in small ensemble settings.

## Science Department Course Offerings

### **(2310) Earth Science**

Grades 10 - 12

1 credit – full year

Earth Science is designed to give students a background in the following areas: rocks and minerals, weather, groundwater, running water, weathering and erosion, and the dynamic processes of plate tectonics (earthquakes, volcanoes, etc.). The study focuses on the connections between the earth's various systems. The class will emphasize hands-on experiences and the use of other educational tools.

### **(2800) Biology**

Grade 10

1 credit – full year

This course is designed to prepare 10<sup>th</sup> grade students to take the Biology Keystone Exam, a required state assessment. The following topics will be studied in detail: chemistry of life, ecosystems, environmental science, cells, cellular transport, photosynthesis & respiration, cell growth & reproduction, genetics, genetic engineering, and evolution.

### **(2930) Honors Biology with Lab**

Grade 9

1 ½ credits – full year

Prerequisites: An 'A' average in 7<sup>th</sup> & 8<sup>th</sup> grade Science and Proficient or Advanced on the 8<sup>th</sup> Grade Science PSSA.

This course is designed for accelerated science students to both prepare them for the Biology Keystone and cover the material in greater depth. The following topics will be covered in greater depth: chemistry of life, ecosystems, environmental science, cells, cellular transport, photosynthesis and respiration, cell growth and reproduction, genetics, genetic engineering and evolution. The lab period will be used to reinforce concepts learned in class through various hands on activities. This class will include a greater emphasis on lab skills and technical writing of lab reports, as well as including more written work and projects requiring independent research.

### **(2820) General Biology**

Grade 10

1 credit – full year

This course is designed for those students who typically struggle in science to prepare them for the Biology Keystone. The following concepts will be covered: chemistry of life, ecosystems, environmental science, cells, cellular transport, photosynthesis and respiration, cell growth and reproduction, genetics, genetic engineering and evolution. Students who historically struggle with science should consider this course, as the pace will be slower and the content will not be covered to the same degree of depth as Biology class.

### **(2990) Keystone Bio Remediation**

Grades 10 – 11

½ credit – 1 semester

*\*\*The ½ credit for this class DOES NOT count as a Science credit\*\**

This course is designed for students who DID NOT pass the Biology Keystone Exam. It is designed to reteach and reinforce concepts to prepare students to retake the Biology Keystone Exam.

## Science Department Course Offerings

### **(2330) College Prep Chemistry & Lab**

Grades 10 – 12

1½ credits – full year

Recommended Prerequisite: Overall GPA of 2.0 or higher, 'C' or better in Algebra

This course provides a complete chemistry course for students who intend to go on to college, but not necessarily to major in a science-related field. A lab period will be scheduled to allow for experimentation, formal lab write-ups, demonstrations, reinforcement activities, and research activities. Chemistry and Chemistry Lab are considered to be one course – one grade is calculated that is inclusive of the two parts, and therefore both courses must be scheduled together.

The format of this course will involve a combination of lecture, research, discussion groups, experimental activities, and an integration of reading and writing activities. There is a focus on the chemistry standards as required by the state, as well as other science, technology and environmental standards.

### **(2220) Introductory Chemistry**

Grade 9

½ credit –Semester

This course is designed to give students an introduction to basic chemistry principles that are needed to understand concepts in biology. This course pairs with 8053 Intro to Animal, Plant & Soil Science and is a required course for freshmen not taking Honors Biology with Lab.

### **(8053) Introduction to Animal, Plant Science, and Soil Science (\*Sci)**

Grades 9 – 10

½ credit –Semester

This ½ credit course focuses on the scientific principles underlying the study of animals, plants, and soils in agricultural production and natural resource systems. FFA activities related to course units of instruction will be integrated into classroom activities. This course pairs with Introductory Chemistry and is a required course for freshmen not taking Honors Biology with Lab.

### **(2125) Advanced Placement Biology & Lab**

Grades 11 – 12

1½ credits – full year

Prerequisites: A grade of 'B' or better in Biology and Chemistry.

The AP Biology course is designed to be the equivalent of a college introductory biology course. The textbook used for AP/biology is also used by college biology students. The types of labs completed by the AP students will be the equivalent of those performed by college students.

The AP Biology course aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology.

Students, after showing themselves to be qualified on the AP Examination, as college freshmen, are permitted to undertake upper-level courses in biology or to register for courses for which biology is a prerequisite. Other students may have fulfilled a basic requirement for a laboratory-science course and will be able to undertake other courses to pursue their majors. Students in this class should take the AP Biology Exam at the end of the year. Financial aid may be available.

## Science Department Course Offerings

### **(2340) College Prep Physics**

Grades 10 – 12

1 credit – full year

Prerequisite: 'B' or better in Precalculus or concurrently enrolled in Precalculus.

The CP Physics course is primarily intended for those students who are bound for higher education with a STEM oriented major of study. Physics is a branch of science that includes the study of the inter-relationship of matter and energy, and their role in everyday living. This course will focus primarily on mechanics, and is intended to prepare you for a freshman level college physics course.

### **(2116) Honors Advanced Chemistry**

Grades 11 – 12

½ credit – semester or A/B day

Recommended Prerequisite: Successful completion of College Prep Chemistry or CHM100 and Algebra II (or currently taking Algebra II) with a grade of 'B' or better. It is also recommended, but not mandated, that students have completed a physics course or are currently taking a physics course.

This course is designed for students who plan to go to college to study any of the sciences, engineering, nursing, pre-medical studies or any similar field. The course will review some topics previously studied at a higher level of understanding as well as cover additional topics such as organic chemistry, nuclear chemistry, and oxidation-reduction reactions. There will be no additional laboratory period required for this course, but there will be laboratory activities incorporated into the course.

### **(2350) Honors Electricity & Magnetism**

Grades 11 – 12

½ credit – semester

Prerequisite: 'B' or better in Precalculus

This course is intended for college bound students who are interested in pursuing a STEM field or anyone with an interest in E&M. It will cover topics in E&M such as Static Electricity, Electric Fields, Electric Potential Energy, Basic Electric Circuits, Magnetism, and Electromagnetism. This course is math intensive.

### **(2360) Honors Waves, Sound & Optics**

Grades 11 – 12

½ credit – semester

Prerequisite: 'B' or better in Precalculus

This course is intended for college bound students who are interested in pursuing a STEM field or anyone with an interest in sound or optics. It will cover Properties of Waves, Properties of Sound, Properties of Light, Mirrors and Lenses, and Vision and Optical Instruments.

## Science Department Course Offerings

### **(2510) Anatomy & Physiology**

Grades 10 – 12

1 credit – full year (NO LAB)

Prerequisites: Students must successfully complete Biology with a 'B' or Better

This class includes the subject areas of biology, chemistry, physics and wellness. The course explores the components of physiology, anatomy, disease, today's society and kinesiology – areas that comprise the human body as a whole. This course looks at the complex components of the body and shows how they work together to provide functioning and a total well-being. The student will be challenged to understand how bodily systems work together to maintain homeostasis, know gross and surface anatomy of the skeletal and muscular systems and, with this knowledge, analyze movement. This course is designed for those students who wish to pursue a profession in the medical field or have an interest in a knowledge base that promotes health.

### **(2530) Astronomy**

Grades 10 – 12

½ credit – semester I

Astronomy is designed to give students the basics of astronomy. The following topics will be studied: history of astronomy, history and formation of the universe and our solar system, constellations, the planets, the moon, and current events in astronomy. The class will emphasize hands-on and eyes-on experiences and the use of other educational tools.

### **(2560) Environmental Science**

Grades 10 – 12

½ credit – semester II

Environmental Science is designed to give students a background in the environment and how humans interact with it. We will focus on the following topics: environmental history, human population, energy, pollution, invasive species, environmental policy, and environmental ethics. The course will involve problem-based learning and multiple projects.

### **(2200) Introduction to Health Careers**

Grades 10 – 12

½ credit – semester III

2 college credits

Prerequisites: 'B' or better in Biology or taking Anatomy during the same year.

Examination of health majors and careers, including an evaluation of personalities in relation to career interests and values needed for success and satisfaction in the health care professions. Topics include discussion of requirements, daily roles, employment opportunities, and projections for the future in each of the selected health care fields.

## Science Department Course Offerings

### **(PC2104) Penn College MTR104: Basics of Medical Terminology**

Grades 11 – 12

½ credit - semester or A/B day

3 college credits

Prerequisites: 'B' or better in Anatomy and Biology and 2.0 GPA, all students will need to purchase their own textbook.

Foundation for the use of the language of medicine, with emphasis on correct pronunciation and spelling, various word parts, abbreviations and symbols, and terms pertaining to body systems. Etiology, symptomatology, pathology, and diagnostic procedures for identifying various disease processes provide an increased understanding of medically related conditions and procedures.

### **(PC2100) Penn College CHM100: Fundamentals of Chemistry**

Grades 10 – 12

1 ½ credits – Full Year plus A/B for lab

4 college credits

Prerequisites: Overall GPA of 2.0 or higher, 'C' or better in Algebra I, Successful completion of Algebra I

Basic principles of chemistry and its practice in the laboratory. Emphasis on the underlying structure of matter (atoms, ions, molecules) and how structure determines properties. Designed to teach chemistry terminology and symbols, as well as to develop analytical and critical thinking skills. Appropriate for non-science majors needing one term of chemistry or to satisfy a lab science requirement. Also appropriate for those who desire background before taking General Chemistry I (CHM111). No prior knowledge of chemistry is assumed, but some algebra skills are needed.



## Social Studies Department Course Offerings

### (3010) Modern World History

Grade 9

1 credit – full year

Students will study major turning points that shaped the modern world from mid-15<sup>th</sup> century to the present using the traditional theme-focused classroom format. Students will use this information to develop an understanding and appreciation of current world events and relate these events to their historical, geographic, political, and cultural context.

The evaluation process will consist mostly of tests, quizzes, and other forms of written work. At times throughout the year, students will have additional assignments and projects that will enrich the educational process of a student at Upper Dauphin Area High School.

### (3210) Honors Modern World History

Grade 9

1 credit – full year

Prerequisites: An 'A' average in 8<sup>th</sup> Grade Social Studies **plus** a teacher recommendation is required for this class. The student should also possess all of the qualities of an honor student: higher level thinking skills, homework completion, high achieving test grades, in-depth written work, good attendance, and high levels of class participation. Academic motivation and a strong student work ethic will ensure success in this course. Completion of the summer reading assignment is required.

In this intensive course, students will analyze major regions of the world and their contributions to shaping the modern world from mid-15<sup>th</sup> century to the present. A focus will be put on detailed writing assignments, class discussion and the use of abstract thought. Students will learn how the different regions of the world molded-not only modern world history, but also modern political thought, geography, culture and the modern world economy.

This class will be writing-intensive and the evaluation process will be in-depth and more advanced than those of the other world history sections. At times throughout the year, students will have additional assignments and projects that will add to the educational process of an Honors student at Upper Dauphin Area High School.

### (3227) Honors American History I

Grade 10

1 credit – full year

Prerequisites: An 'A' in the previous Social Studies course **plus** teacher recommendation. Candidates may be required to submit a writing sample as well. Completion of the summer reading assignment is required.

Honors American History I will cover American History during the time period of the Pre-Columbian Era 1491 through 1877 reconstruction. Grading for the course will be based on exams, quizzes, essays, projects, and presentations. Historical thinking skills and themes will be presented and studied. Students will focus on preparing arguments to solve historical questions. In addition, students will study opposing viewpoints on historical issues. There will be a heavy emphasis on outside readings and assignments including a Summer Reading Assignment. Students will be taught how to write answers to short answer questions and long essay questions. Data-based questions will also be introduced. A writing assessment will be included on all the major periods of history that are covered. Students who wish to take the advanced placement honors history course during their junior year should consider taking this course.

## Social Studies Department Course Offerings

### **(3026) American History I**

Grade 10

1 credit – full year

This course will cover American History from the pre-Columbian period, 1491 of European explorations through 1877 reconstruction. There will be heavy emphasis on how economics, politics, geography, and social issues transformed America.

Students will be graded on tests, quizzes, homework, projects, and possibly a Research Paper in conjunction with the English Department.

### **(3060) Local History**

Grades 10 - 12

½ credit – 1 semester

The Local History Class will increase the student's knowledge and appreciation of local history.

Students will analyze the founding of local communities and townships in terms of the individuals, businesses, and industries which created them. A focus will be on people of interest, major historical events and locations.

Grading will be based upon extensive outside the classroom assignments which will include: Visiting a Local Historical Society Meeting, Reading, PowerPoint Presentations, Photography Assignments, Research of Local History subjects. A major requirement is the end of the semester "Bringing Local History Alive" presentation to the entire class which will need to be completed in order to earn credit for the course.

### **(3228) AP United States History**

Grade 11

1 credit – full year

Prerequisites: An 'A' or 'B+' in the previous social studies course or an 'A' or 'B' in the previous honors social studies course in addition to teacher recommendation. Candidates may be required to submit a writing sample as well. Completion of the summer reading assignment is required.

This course builds on the Honors American History I course. This course content includes the history of the United States from the pre-Columbian Era, 1491 to the present in a manner that will prepare students for the Advanced Placement exam given in May of the junior year. All 9 periods of US history will be covered by either review of 10<sup>th</sup> Grade Honors American History I course and the presentation of new curriculum material. Students will use historical thinking skills to understand and analyze the causes and effects of major events, the trends/themes in major areas, and the significant historiographical controversies concerning each of the 9 periods of US History will be studied. Students will prepare arguments on historical topics, write questions to long essay questions, data based questions, and short answer questions. A writing assessment in AP format on every period is required.

Required assignments include summer reading, a book report emphasizing historical setting, projects involving primary sources, extensive outside the classroom writing and analysis, primary source readings and papers. Successful students will be required to complete extensive outside of the classroom work and study.

## Social Studies Department Course Offerings

### (3028) American History II

Grade 11

1 credit – full year

The course covers the period from 1877 to the present time, with particular emphasis on the coordination of political, economic and social events in this period of the American experience. The main emphasis of the course is to help students obtain the knowledge that is necessary to participate in our society. Grading will be based on tests, participation in class, homework and reports.

### (3042) Intro to Economics

Grades 10 – 12

½ credit – 1 semester

Economics provides an understanding of fundamental economic concepts, demand & supply, the operation of the United States' economy and of current economic problems facing the nation. The majority of the course focuses on the fundamental economic concepts and microeconomics. Many concepts are applied in class through simulations and projects.

Grading will be based on homework, quizzes, tests, and participation in class.

### (3305) College Prep Principles of Microeconomics

Grades 11 – 12

½ credit – 1 semester

Prerequisite: An 'A' or 'B' in *Intro to Economics* and/or the recommendation of the economics teacher.

The course is designed to prepare students for future college courses in economics. Students should have already taken the *Intro to Economics* course and have a firm understanding of fundamental economic concepts.

The approach in **Microeconomics** will be to give the students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting great efficiency and equity in the economy. **Math skills required.**

Grading will be based on tests (including essay questions), quizzes, and class projects.

### (3315) College Prep Principles of Macroeconomics

Grades 11 – 12

½ credit – 1 semester

Prerequisite: An 'A' or 'B' in *Intro to Economics* and/or the recommendation of the economics teacher.

The course is designed to prepare students for future college courses in economics. Students should have already taken the *Intro to Economics* course and have a firm understanding of fundamental economic concepts.

The approach in **Macroeconomics** will be to give the students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. **Math skills required.**

Grading will be based on tests (including essay questions), quizzes, and class projects.

## Social Studies Department Course Offerings

### **(3050) Freedom: Understanding the Nation**

Grades 11 – 12

½ credit – 1 semester

Freedom: Understanding the Nation is geared toward those students with an interest in political science - the study of governments, public policies, political processes, and political behavior.

In order for the United States to continue to succeed and be a leading voice for freedom and democracy in the world, it is essential for Americans to understand and participate in the government of this country. The government impacts the lives of all Americans, from providing services, to setting public policy, to establishing, interpreting, and enforcing laws.

This course will examine concepts such as the foundations of American government, state and local government, public policies and services, civic participation, and freedoms, rights, law, and justice.

Grading will be based on the following: tests, quizzes, projects, oral/visual presentations, class discussion, homework, class work, and a final examination.

### **(7210) Honors Humanities 100 (NOT OFFERED in 2022-2023)**

Grades 11 – 12

1 credit – full year

Prerequisite: Recommendation of Humanities and/or current English/Social Studies teacher

Honors Humanities 100 is the introduction to a two-year sequential multi-disciplinary college-level course taught by faculty from the Art and Music Departments. The philosophies, music, and art forms of the major Western civilizations and cultural epochs from the Ancient World to the modern day are studied and analyzed in close detail with a heavy emphasis placed on the interrelationships evident between all three. Students will be required to write a research paper each marking period, complete weekly exams and actively participate in Seminar discussions.

### **(7220) Honors Humanities 101 (OFFERED in 2022 - 2023)**

Grades 11 – 12

1 credit – full year

Prerequisite: Recommendation of Humanities and/or current English/Social Studies teacher.

Honors Humanities 101 is the continuation of a two-year sequential multi-disciplinary college-level course taught by faculty from the Art and Music Departments. The philosophies, music, and art forms of major Western civilizations and cultural epochs from the Ancient World to the modern day are studied and analyzed in close detail with a heavy emphasis placed on the interrelationships evident between all three. Students will be required to write a research paper each marking period, complete exams, and actively participate in seminar discussions.

## Social Studies Department Course Offerings

### **(3414) Personal Finance**

Grades 12

1 credit – full year

***This course can be used as a math credit, social studies credit or a business elective credit.***

Personal Finance is organized around three themes and mapped around fundamental knowledge and skills needed in these areas to achieve a comfortable level of financial confidence and independence after high school. These themes are: Consumer Economics, Banking and Financial Systems, and Fundamentals of Insurance. Using project-based instruction and real-world situations this course will give students the knowledge and general understanding of all key aspects of personal finances necessary to be successful now and throughout their adult lives. The structure of this class will reflect real-world situations as closely as possible. Students will analyze money systems and make personal decisions about financial goals based on economic climate and employment data. They will look at making reasoned and informed decisions about current and future financial goals. Economics, Reading, Writing, and Speaking Standards are all applied in this course.

### **(LC3550) Lackawanna College Soc 105: Intro to Sociology (Honors Weighted)**

Grades 11 - 12

½ credit – semester

3 College Credits

Prerequisite: Counts toward social studies requirement, \$300 tuition and the cost of any textbook, pending teacher approval

Sociology is the scientific study of human society and social interaction. All of us, of course, already have considerable experience living in society and interacting with other people. Sociology, however, is an unfamiliar way of looking at the familiar. It should help us understand our experience in a more critical way, and, therefore, to use that experience more effectively. As an introduction to the discipline of Sociology, this course is organized as a skills as well as a survey class. That is, in addition to acquainting you with the basic concepts used by sociologists to explain everyday social interaction; this course will give you elementary skills with which to “decode” society and social life. It is also designed to help you gain some insights on how to act on this knowledge.

\*This course is offered during the Spring Semester only.

### **(LC3043) Lackawanna College Psych 105: Intro to Psychology (Honors Weighted)**

Grades 11 – 12

½ credit – semester

3 College Credits

Prerequisite: Counts toward social studies requirement, \$300 tuition and the cost of any textbook

Psychology, the study of the mind and behavior, is designed for students who plan to continue their education after high school. The course will focus on topics such as: historical approaches, research methods/statistics, life span, workings of the mind and body, learning and cognition, personality and disorders.

\*This course is offered during the Fall Semester only.

## Student Assistants

### **(9600) Teacher Assistant**

Grades 9 – 12

1 credit – full year

This class is for students wanting to assist the Life Skill's teacher with the day to day activities in the special needs classroom. This may include tutoring, basic classroom duties and other day to day tasks to assist the teacher.

### **(9601) Teacher Assistant**

Grades 9 – 12

½ credit – 1 semester

This class is for students wanting to assist the Life Skill's teacher with the day to day activities in the special needs classroom. This may include tutoring, basic classroom duties and other day to day tasks to assist the teacher.

### **(9540) Elementary Education Internship – (Academic Credit)**

Grade 12

3 credits – full year

Recommendation: *Take the Child Development Course at Upper Dauphin Area High School prior to starting/while taking this course.*

Prerequisites: Students intending to be an Elementary Education Intern in the elementary school must do the following:

- Obtain and provide current clearances and be approved by the UDASD School Board as a volunteer.
- Sign a confidentiality agreement and maintain confidentiality at all times.
- Simultaneously enroll in the (9550) Foundations in Education course **OR** students who already completed and passed the Foundations in Education course must simultaneously enroll in Diversified Occupations I.

This daily class will include, but not be limited to, the following experiences and responsibility:

- Assisting individual and small groups of children with a variety of academic and social/emotional tasks (e.g. assisting during learning centers, practicing letter/word rings, etc.)
- Assisting the teacher with teaching tasks (e.g. leading calendar time, providing input for lesson planning, grading, etc.)
- Gaining experience working with children with a variety of learning, behavioral and social/emotional needs.
- Maintain passing grades in all coursework at the high school.
- Consistently show good attendance and communicate with their mentor/supervisor when they are not able to attend.

## Student Assistants

### **(9550) Foundations in Education**

Grades 11 - 12

1 credit – full year

Recommendation: *Take the Child Development Course at Upper Dauphin Area High School prior to starting/while taking this course.*

This course is intended for upperclassmen considering careers in teaching or for those students with an interest in our educational system and its foundations. Each of you has years of experience in a variety of structured educational systems: preschool, Sunday school, home school, virtual school, public school, private school—you know what teaching *looks like* and *what teachers do*. However, if you intend to be a teacher—an effective teacher—then you must have a critical understanding of school, teachers, students, and *the art of teaching* in the United States. In this course we will examine the historical, social, philosophical, political, and cultural issues that shape what it means to be a teacher today. Students will demonstrate learning through classroom discussions, journal reflections, short writing assignments, and activities that examine personal beliefs and values, best practices in education, challenges, and current research. Experts in education will be invited to share their experiences with students throughout the course.

*This course may be taken as an elective BUT it is required for seniors simultaneously enrolled in the Elementary Education Internship. If a senior Elementary Education Intern already completed and passed Foundations in Education, the intern will simultaneously enroll in Diversified Occupations I instead.*

## Student Services

Students who have an Individualized Education Program (IEP) will most likely be scheduled for a resource class. Please see the description below for more information. Entrance to special education is by testing, the recommendation of an educational psychologist and the IEP team.

### **Resource**

Students will be provided with academic assistance and opportunities to prepare, organize, plan, and complete assignments for their other classes. Academic progress will be reviewed weekly and remediation will be provided when deemed necessary. Prior approval is required.

#### **(9750) Resource**

Grades 9 – 12

#### **(9751) Resource**

Grades 9 – 12

#### **(9752) Resource**

Grades 9 – 12



## Wellness/Physical Education Department Course Offerings

### **(9091) Freshmen Health**

Grade 9

½ credit – full year

Freshmen Wellness is a course designed to provide students with an accurate understanding of the important topic of human sexuality. This class will cover the major aspects of human sexuality including but not limited to: healthy relationships, female and male reproduction, contraception, the risks of sexual activity, and STI's.

### **(9092) Freshmen Physical Education**

Grade 9

½ credit full year

Freshman Physical Education is a course designed to provide a learning environment that will allow students to succeed by practicing and developing skills and activities that will help maintain fitness throughout their life. The focus is to promote fitness, along with developing skills that will provide the opportunity for students to participate in a variety of activities, into their adult lives. Students will be introduced to activities in strength training, fitness testing, cardiovascular conditioning, recreational activities, team sports, lifetime sports, and individual fitness challenges.

### **(9101) Sophomore Health**

Grade 10

½ credit – full year

Sophomore Wellness is a course designed to provide students with an accurate understanding of the following health topics: organ donation, the skeletal system, muscular system, and drug education. The students will complete an extensive drug research project that will utilize the BIG 6 researching skills. The class will investigate the following areas: facts, effects, treatment, and the brain. The individuals will present their findings using a Web 2.0 presentation format.

### **(9102) Sophomore Physical Education**

Grade 10

½ credit full year

Sophomore Physical Education is a course designed to expand upon student's knowledge and skills related to physical education. The focus is to promote fitness, along with developing skills that will provide the opportunity for students to participate in a variety of activities, into their adult lives. Students will be introduced to activities in strength training, Fitness testing, cardiovascular conditioning, recreational activities, team sports, lifetime sports, and individual fitness challenges.

## Wellness/Physical Education Department Course Offerings

### **(9111) Junior Wellness**

Grade 11

½ credit – Semester

Junior Wellness is a course designed to provide students with the knowledge and skill required to lead a healthy life. The focus of the course is personal fitness. Specific units will include first aid and CPR, cardiovascular fitness, strength training, circuit training, and other popular fitness programs (i.e. T25). Topics covered include target heart rate, components of strength training, and lifelong fitness. The overarching goal of this course is that each student will have the educational background necessary to design and implement a personal fitness program at any point throughout their life.

### **(9150) Strength and Conditioning**

Grade 9 – 12

½ credit – Semester

Prerequisite: Students wishing to enroll in this class will need a recommendation from a PE teacher, or their coach, and a parent signature.

The course will provide an opportunity for development of strength and conditioning for various sports and fitness related activities. Free weights, exercise machines, and conditioning activities will be incorporated to promote improvement in strength, endurance, balance, agility, and speed. Proper technique, safety precautions, and application of training principles will be emphasized. A plan to achieve goals will be developed and implemented. **This course is an elective that cannot be used for wellness credit applied toward graduation requirements.**

## World Language Department Course Offerings

In today's world, understanding the language and the culture of another country is a highly marketable skill in a wide range of occupations. The ability to communicate in another language and to understand the customs of its speakers is an advantage in almost any field, both here in the United States and abroad. The road to acquiring these skills begins in the high school world language classroom.

Many colleges have both a world language requirement for admission and a number of college level credits necessary for most students to obtain their degree. Therefore, successful completion of at least two years of the same language on the high school level will be a definite asset. For the many students who will be required to take a language in college, **four** years of the same language in high school is recommended to provide the best preparation for those college courses. Of course, the usefulness of knowing another language is not limited to the college-bound.

**Students planning to take a foreign language should understand that they must make a commitment of time and effort in order to learn any language. Regardless of which language is chosen, it is important to complete all assignments, to practice and review material regularly, and to prepare thoroughly for tests.**

### (5021) French I

Grade 9

1 credit – full year

Students will acquire language skills necessary for basic reading, writing, speaking, and listening. Fundamental grammatical structures are taught and emphasized through oral and written practice. Francophone culture is introduced, with an emphasis on France. Students are further exposed to French through audio-visual and support materials. This is an online class which is supervised and monitored by one of our teachers.

### (5022) French II

Grade 10

1 credit – full year

Prerequisite: French I

Basic concepts from French I are reviewed and expanded upon. Students are introduced to new grammatical concepts and speech patterns. Concepts are practiced through oral and written exercises. Increased conversation is emphasized, as well as study of other Francophone culture. This is an online class which is supervised and monitored by one of our teachers.

### (5023) French III

Grade 11

1 credit – full year

Prerequisite: French II with a grade of 'A' or 'B' and teacher recommendation

More advanced grammatical concepts are introduced, practiced, and reinforced through written and oral practice. A more detailed study of Francophone culture is provided. Short story readings are also included.

This is an online class which is supervised and monitored by one of our teachers.

### (5224) Honors French IV

Grade 12

1 credit – full year

Prerequisite: French III with a grade of 'A' or 'B' and Teacher recommendation

Upper-level concepts are introduced and practiced. Emphasis is on increased language use through conversation and reading. French history and culture will be studied in more depth. Current topics in France, such as religion, politics, and social structure will be examined and discussed in French.

This is an online class which is supervised and monitored by one of our teachers.

## World Language Department Course Offerings

### **(5031) Spanish I**

Grade 9

1 credit – full year

Students learn the fundamentals of the language necessary for basic conversation, reading and writing. Grammatical structures and vocabulary are taught and practiced through oral and written exercises. Students are introduced to the countries of the Spanish-speaking world with emphasis on a study of Spain and are exposed to Hispanic traditions and lifestyles through reading, research projects and audio-visual support materials.

### **(5032) Spanish II**

Grade 10

1 credit – full year

Prerequisite: Spanish I

Basic speech patterns learned in Spanish I are reinforced and expanded. New vocabulary and grammatical concepts are added and developed through oral and written exercises. A study of Mexico is included through readings, research projects and audio-visual support materials.

### **(5033) Spanish III**

Grade 11

1 credit – full year

Prerequisite: Spanish II with a grade of 'A' or 'B' and teacher recommendation

In Spanish III, additional vocabulary and more complex grammatical concepts are introduced and reinforced, and communication skills are expanded through more intensive reading, writing, speaking and listening activities. Culture readings include a more detailed study of Spain and Latin America. Language and culture are explored through multi-media resources and classroom activities.

### **(5234) Honors Spanish IV**

Grade 12

1 credit – full year

Prerequisite: Spanish III with a grade of 'A' or 'B' and Teacher recommendation.

The focus of Honors Spanish IV is to improve and expand reading, writing, speaking and listening skills through the continued study of people and lifestyles of Spain and Latin America. Students will be expected to discuss cultural issues and present research projects in written and spoken Spanish.

Textbook material is supplemented by research projects and audiovisual support materials. This course fosters more student-directed learning and has less teacher-led instruction.

## World Language Department Course Offerings

### **(5041) German I**

Grade 9

1 credit – full year

In German I, the student will acquire simple listening and speaking skills reinforced by a gradual study of related grammatical concepts. Traditions and lifestyles of the various German-speaking countries will be considered. Grades are derived from quizzes, tests, dialogues to be memorized and some special projects.

This is an online class which is supervised and monitored by one of our teachers.

### **(5042) German II**

Grade 10

1 credit – full year

Prerequisite: German I

In German II, the student will deal with more advanced audio-lingual and grammatical concepts. The material will continue to revolve around various aspects of modern living in the German-speaking countries. Grades are derived from quizzes, tests, dialogues, and special projects.

This is an online class which is supervised and monitored by one of our teachers.

## Career & Technical Education Programs

The Upper Dauphin Area High School offers 5 Career & Technical Education Programs including Agriculture, Building Trades, Communications Technologies, Diversified Occupations and Welding. Interested students who meet the eligibility requirements will take coursework throughout high school and earn the proper credits to be considered a vocational concentrator/completer. Students who successfully complete coursework will also qualify for the NOCTI exam, a nationally recognized exam that measures the skills of those who complete a secondary technical program. Based on the results of this exam, students will have the opportunity to earn a certificate or college credit in the respective technical area.

## CTE - Agriculture & Natural Resources Courses and Pathways

**Upon successful completion of courses marked with a (\*Sci), science credit is awarded.**

Completer of any CTE program requires 1320 hours.

Concentrator of any CTE program requires 50% or 660 hours.

Each credit earned in a technical program is equivalent to 120 hours. A student needs to take and pass a minimum of 5.5 credits in a given technical area to qualify to take the NOCTI Exam. The NOCTI exam is given in the spring of your senior year.

### **Level I Courses**

Important note: It is strongly suggested that students complete both Level I courses by the end of their sophomore year.

**(8051) Introduction to Agricultural Mechanics and Technology (\*Sci)**

**(8053) Introduction to Animal, Plant Science, and Soil Science (\*Sci)**

### **Level II Courses**

- After completing prerequisite Level I courses, students can choose specific Level II courses that are relevant to personal career paths shown below. Note that each career path column heading shows prerequisites for the courses listed within that career path.

<u><b>Power, Structural, &amp; Technical Systems</b></u> Prerequisite: 8051	<u><b>Animal Systems</b></u> Prerequisite: 8053	<u><b>Plant Systems</b></u> Prerequisite: 8053	<u><b>Natural Resources Systems</b></u> Prerequisite: 8053
<ul style="list-style-type: none"> <li>Advanced Ag Mechanics</li> <li>Ag Engineering Technology</li> <li>Small Gas Engines</li> <li>SAE</li> </ul>	<ul style="list-style-type: none"> <li>Animal Science (*Sci)</li> <li>Dairy, Livestock and Equine Production &amp; Managment</li> <li>Meat &amp; Food Science</li> <li>SAE</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse Production &amp; Management</li> <li>Advanced Horticulture</li> <li>Crop &amp; Soil Science (*Sci)</li> <li>SAE</li> </ul>	<ul style="list-style-type: none"> <li>Forest and Wildlife Management</li> <li>Natural Resource Management</li> <li>Crop &amp; Soil Science (*Sci)</li> <li>SAE</li> </ul>

## AGRICULTURE AND NATURAL RESOURCES COURSE OFFERINGS

These courses are designed to meet the needs of students seeking careers in this area of study, and also to provide enrichment and utility courses for all students. Please consult the career pathways table found above.

**\*Sci = Credit for these courses may be used as a science credit.**

### Level I Courses

Important note: For those with career interest in this area, it is strongly suggested that students complete both of these Level I courses by the end of their sophomore year.

#### **(8051) Introduction to Agricultural Mechanics and Technology (\*Sci)**

Grades 9 – 12

½ credit – Semester

This ½ credit course focuses on the scientific principles underlying the study of machine and technological systems in agricultural production and natural resource systems. FFA activities related to course units of instruction will be integrated into classroom activities. This course is intended to pair with 8053 whenever a student's schedule permits, and it is a prerequisite for many Level II courses, as specified below.

#### **(8053) Introduction to Animal, Plant Science, and Soil Science (\*Sci)**

Grades 9 – 12

½ credit – Semester

This ½ credit course focuses on the scientific principles underlying the study of animals, plants, and soils in agricultural production and natural resource systems. FFA activities related to course units of instruction will be integrated into classroom activities. This course is intended to pair with 8051 whenever a student's schedule permits, and it is a prerequisite for many Level II courses, as specified below.



## AGRICULTURE AND NATURAL RESOURCES COURSE OFFERINGS

### Level II Courses

After completing the prerequisite Level 1 course(s), the ½ credit courses listed below can be taken according to the student's career interests. Pay close attention to the prerequisites specified for Level II courses. (8013) Basic Welding and (8034) Ag Business Management have no prerequisites, and these courses can be taken whenever they fit the student's schedule.

#### **(8013) Basic Welding**

Grades 9 – 12

½ credit – 1 semester

Students will begin with basic instruction in welding careers, shop safety, oxy-acetylene processes, and advance to electric arc, metal inert gas (MIG) welding. The plasma-cutting technique will also be a part of this course, along with a brief introduction to Tungsten Inert Gas (TIG) welding. The emphasis is on fundamentals in preparation for more advanced study and practice in this subject area. There are no prerequisites for this course.

This course is offered as part of the Agriculture and Natural Resources program and it is to be taken to entry into the Welding Technology/Welder Program of Study.

#### **(8014) Small Gas Engines**

Grades 10 – 12

½ credit – 1 semester

This course covers the small gas engine and its systems, such as carburetion, ignition, compression, governing and cooling. Use of common shop tools and measuring devices as well as tune-up and repair is emphasized. Students will also work in small groups disassembling and reassembling a single cylinder engine. Must have completed 8051

#### **(8120) Ag Engineering Technology**

Grades 10 – 12

½ credit – Fall Semester

This course provides basic instruction in engineering and agriculture. Students will be prepared to solve real-world problems related to ag production, processing systems, ag conservation and natural resource management. Must have completed 8051.

#### **(8017) Advanced Agriculture Mechanics**

Grades 10 – 12

½ credit – Spring semester

Students will build upon knowledge provided from prerequisite classes listed below. This will be achieved through project based learning and advanced planning. Students must have completed 8051 and either Basic Welding (8013) or Small Gas Engines (8014). Teacher permission is required for this course.

#### **(8021) Crop and Soil Science (\*Sci)**

Grades 10 – 12

½ credit – Semester

This course is designed to teach the basics of soil science and agronomic crop production. The fundamentals of soil science will be covered before advancing to topics on growing agronomic crops common to Pennsylvania. Computerized soil mapping using Geographic Information Systems (GIS) will be covered. Must have completed 8053.

## AGRICULTURE AND NATURAL RESOURCES COURSE OFFERINGS

### **(8024) Forest and Wildlife Management**

Grades 10 – 12

½ credit – Fall semester

Students will cover topics such as tree biology, woodland management, tree identification, forest products, land use, and chain saw safety and maintenance, and it covers wildlife management principles as they relate to Pennsylvania's wildlife resources. Wildlife identification, population control, and habitat improvement will be covered. Time permitting, aquatics will also be introduced. Must have completed 8053

### **(8026) Natural Resources Management**

Grades 10 – 12

½ credit – Spring semester

Students will cover topics on land use, water quality, sustainability, stewardship, and environmental agencies. This course will provide hands-on projects and activities in the field of natural resources and ecology. Must have completed 8053

### **(8031) Advanced Horticulture**

Grades 10 – 12

½ credit – A/B Day

Horticulture is defined as the science and art of growing fruits, vegetables, flowers, or ornamental plants. This course will include instruction in all these areas. A key requirement of this course is the planning and implementation of a real-world, personalized student project. Must have completed 8053

### **(8032) Greenhouse Production and Management**

Grades 10 – 12

½ credit – A/B Day

Greenhouse structures, equipment, controls and management will be covered, as well as material on plant propagation and care. Students will gain extensive experience in vegetable and flower bedding plant production. Must have completed 8053

### **(8135) Dairy, Livestock and Equine Production and Management (NOT OFFERED 2022-2023)**

Grades 10 – 12

½ credit – 1 semester

Dairy and Livestock Production and Management will be taught in school years beginning with an odd number.

This course is designed for both farm and non-farm students with an interest in dairy, livestock and equine production. Feeding, genetics, reproduction, health care, and economics will be stressed. Must have completed 8053

### **(8125) Ag Business Management (OFFERED 2022-2023)**

Grades 9 – 12

½ credit – 1 semester

Ag Business Management will be taught in school years beginning with an even number.

This course covers starting a business, understanding financial documents, identifying risk management strategies, and writing a business plan. There are no prerequisites for this course.

## AGRICULTURE AND NATURAL RESOURCES COURSE OFFERINGS

### **(8035) Animal Science (\*Sci)**

Grades 10 – 12

½ credit – 1 semester

This is designed to expose students to agriculture, animal science, and related career options. Students participating in the course will have experiences in various animal science concepts with hands-on activities, projects, and problems. Students' experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective careers. Must have completed 8053

### **(8036) Meat and Food Technology**

Grades 10 – 12

½ credit – 1 semester

This course begins with an exploration of the U.S. and global food industry, and advances into topics relating science to the production and processing of foods. Many hands-on activities allow students to process and preserve a variety of common foods. Meat processing and carcass evaluation is covered also. Must have completed 8053

### **(8041) Supervised Agriculture Experience Project (SAE)**

Grades 10 – 12

½ credit – A or B Days

### **(8042) Supervised Agriculture Experience Project (SAE)**

Grades 10 – 12

½ credit - 1 semester

### **(8043) Supervised Agriculture Experience Project (SAE)**

Grades 10 – 12

1 credit - full year

You must obtain prior written teacher permission to be enrolled in this SAE. This requirement will be strictly enforced. Must have completed 8040 and either 8051 or 8053.

SAE is designed to supplement other agriculture education coursework. Students must identify a specific project or personal interest before enrolling in SAE, and they must be willing and able to work independently. A web-based record system (The Agricultural Experience Tracker – AET) is used to monitor, document, and grade student performance.

## AFTERNOON AGRICULTURE PROGRAM

At the request of consortium schools, UDA High School created an afternoon agriculture program intended for consortium students. The program is also open to resident nonpublic school students. All outside students must apply to the program according to the administrative regulation. **Applicants should have a demonstrated interest in vocational agriculture and not apply simply to fill their schedules.**

### **Students are required to take the following classes:**

Foundations in Agriculture and Natural Resources, ½ credit, full year

Introduction to Environmental Science and Agriculture Mechanics, ½ credit, full year

Introduction to Animal, Plant, and Soil Science, ½ credit, full year

Students then schedule classes according to availability. Students must take three full credits yearly.

As UDAHS enrolled resident students have first choice of courses, program seats are limited and dependent upon the UDAHS enrolled residents' course selection.

### **Students applying to the program must do, and qualify, as follows:**

1. Have a demonstrated interest in vocational agriculture according to career interest surveys;
2. Obtain the prior written permission of the student's High School Principal to participate in the District's Vo-Ag Program;
3. Demonstrate successful completion of all academic course work that is prerequisite for a particular Vo-Ag Program offering;
4. Demonstrate that in the preceding academic semester/school year prior to the non-District high school student seeking to participate in the District's Vo-Ag Program that he/she obtained passing grades in all academic courses and maintained at least a 2.0 grade point average;
5. A non-District high school student will be deemed ineligible to participate in the Vo-Ag Program for any of the following reasons:
  - a. The student has a discipline record.
  - b. The student received an incomplete in two or more academic courses in the prior academic semester;
  - c. The student failed two or more academic courses in the prior academic semester; or
  - d. The student received an incomplete in one academic course and failing grade in another course in prior academic semester.

## AFTERNOON AGRICULTURE PROGRAM (CONTINUED)

### Application should be made as follows:

1. Students from schools outside the district or district residents attending nonpublic schools need to express their interest in attending UDAHS's afternoon vocational agriculture program by late February of the year prior to August admission and begin to collect their materials documenting their qualifications for admission. The student's admission packet must consist of:
  - a. Student's letter of application
  - b. Student's academic transcript
  - c. Student's resume, including activities which evince an interest in vocational agriculture
  - d. UDAHS Agriculture Department interest survey
  - e. Sending principal's letter of recommendation
2. Applications for admission should be received no later than July 1 of the year prior to August admission.
3. Due to late scheduling changes, UDAHS will not be able to guarantee students a place in the afternoon program until UDAHS guidance has gone through its conflict interviews with students wishing schedule changes. The first round of those interviews conclude prior to the start of school, meaning UDAHS and the district will not be able to positively verify that there will be seats for new students until the week of the start of school. I realize that is unfortunate, but we must accommodate resident students enrolled at UDAHS first.

If there are more applicants than seats, returning consortium and nonpublic school students will be seated first, according to their grades in UDAHS agriculture courses. For new students applying, open seats will be assigned to those with the greatest demonstrated interest in agriculture and the best academic qualifications.

## CTE – Building Construction Trades Course Offerings

Completer of any CTE program requires 1246 hours.

Concentrator of any CTE program requires 50% or 623 hours.

### **(9010) Building Trades I (3 periods/day-am or pm)**

Grades 10 –11

3 credits – full year

Recommended Prerequisite: Basic Cabinet Making I.

Demonstrate safety rules for the construction trades, identify and demonstrate proper use of hand tools, identify and proper operations of portable power tools and equipment, introduction to local building codes and blue print reading, introduction to masonry trades, introduction to rough carpentry, introduction to simple electrical and plumbing systems. Use of knowledge and skills at the off-site project.

### **(9011) Building Trades II (3 periods/day-am or pm)**

Grades 11 – 12

3 credits – full year

Prerequisite: A '75%' or better in Building Trades I. Need BT instructor or administrator approval.

Review of construction site safety, review of usage of hand and power tools, review of building codes and blue print reading, assisting in preparing material list for off-site work or projects at the school. Be provided an in depth look at skilled trades, masonry, carpentry, electrical, plumbing, interior and exterior finishes. Building Trades II students will also be tasked with the design and construction of the display for the homebuilders show.

### **(9012) Building Trades III (3 periods/day-am or pm)**

Grade 12

3 credits – full year

Prerequisite: A '75%' or better in Building Trades II. Need BT Instructor or administrator approval.

This course continues to expand upon the concepts and skills learned in previous years. Students will be involved in the design concept of the off-site project. The advanced students will be given the opportunity to lead and assist in training teams on the building site. Students will be provided time to expand and focus their understanding and knowledge of a specific trade area.

### **Additional Industry Credentials and Opportunities for Students:**

- Membership in the NAHB student chapter.
  - OSHA Ten Hour General Industry Safety Card.
  - Recognitions from Industry Suppliers.
  - Credentialing from the local Home Builders Association provided by local colleges.
  - Advanced career placements thru NAHB and local Home Builders Associations.
  - Assistants in obtaining construction industry scholarship funding provided only to construction industry students.
- ❖ With membership in the **NAHB** student chapter, students have opportunities to compete for prizes at state level chapter events. For students winning state level chapter events, the opportunity exists to move to national level competitions. Just for information, the next three years the national competition will be held in Las Vegas, Nevada.

**Please Note** - Students who complete at least 2 full years of the Building Trades Program by the end of their senior year, will qualify to take the NOCTI Exam in Construction Trades Technology. The Construction Trades Technology, NOCTI tests students in hands-on knowledge and skills required to lay out, fabricate rafters and wall systems, lay a masonry wall, and perform a given task for electrical and plumbing. The NOCTI has a written test that covers knowledge of framing, construction materials, blueprint reading, simple construction math, masonry terminology, electrical and plumbing theory and finish carpentry techniques.

## CTE - Communications Technologies Department Course Offerings

Completer of any CTE program requires 1320 hours.

Concentrator of any CTE program requires 50% or 660 hours.

### **(6433) Computer Applications I – Word Processing/Presentation Basics**

Grades 9 – 12

½ credit – 1 semester

Prerequisite: This is a **remediation course** for ONLY those students who did not successfully complete Computer Applications I (8<sup>th</sup> Grade).

This course introduces students to word processing and presentation concepts as part of an office software productivity suite. This is a self-paced, hands-on approach that utilizes creative computer projections, group instruction, and step-by-step instruction using numerous business and general interest topics.

### **(6434) Computer Applications II – Word Processing/Presentation/Spreadsheet**

Grades 9 – 12

½ credit – 1 semester

Prerequisite: Passed 8<sup>th</sup> Grade Computer Applications I with a 'C' or better

This course builds on the basic concepts introduced in word processing and presentation as part of an office software productivity suite and introduces spreadsheet functionality. This is a self-paced, hands-on approach that utilizes creative computer projections, group instruction, and step-by-step instruction using numerous business and general interest topics. A focus of this course is to master these applications both separately and in an integrated environment.

### **(6445) Computer Applications – Graphic and Technology Design**

Grades 9 – 12

½ credit – 1 semester

Students will be introduced to computer applications that focus on the generation and adaptation of computer graphics and digital images. The integration of typography with imagery will be explored with emphasis being placed on creating visually appealing publications. This is a self-paced, hands-on approach that utilizes creative computer projections, group instruction, and step-by-step instruction.

### **(6480) Digital Media I - Video and Photography**

Grades 9 – 12

½ credit – 1 semester

This course introduces students to the fundamentals of digital video production and photography. Students will learn how to produce short videos, including story-boarding and shooting, and will finish productions using current video- and sound-editing software. This course builds on the basic concepts of the video production work flow. Students will develop an understanding of pre-production, production and post-production processes. This is a hands on, project based course that utilizes digital media concepts which will feature digital media hardware/software tools, techniques and digital media applications. This course is designed to familiarize you with the processes and tools associated with Video Production. In the photography portion of this class, you will learn how to use exposure, F/stops, shutter speeds, lighting techniques, white balance, and depth of field to create powerful and compelling images in and out of the studio.



## COMMUNICATIONS TECHNOLOGIES DEPARTMENT COURSE OFFERINGS

### **(6482) Digital Media II – Video and Photography**

Grades 9 – 12

½ credit – 1 semester

This course will move students from the fundamentals of digital video production and photography to the more advanced features. This is a hands on, project based course that utilizes digital media concepts which will feature digital media hardware/software tools, techniques and digital media applications.

### **(6510) Video Broadcasting I**

Grades 9 - 12

1 credit – Full year

### **(6515) Video Broadcasting I**

Grades 9 – 12

½ credit – 1 semester

Prerequisite: Digital Media or Teacher approval

Video Broadcasting I is a project-based course, where students use industry-standard video editing hardware and software to learn the process of creating a broadcast-quality video production. Equipment to be used and trained on includes video mixing boards, HD video cameras, and industry-standard editing software in a new control room and studio. Students create video news packages, work as teams to design, film, and produce live and tape-delayed shows that will broadcast to the school community. Students are required to help broadcast school events such as drama and fine arts productions, and sports events.

### **(6520) Video Broadcasting II**

Grades 10 - 12

1 credit – Full year

### **(6525) Video Broadcasting II**

Grades 10 – 12

½ credit – 1 semester

Prerequisite: Video Broadcasting I

Students will apply concepts they learned in Video Broadcasting I as well as learn more hardware, software, and production processes used to create video and audio productions in order to produce all aspects and content of a regularly scheduled production as part of a production team. Productions could include a high school student-focused news and variety show, a radio or podcast show, a sports show, and/or commentary show. Students will also help broadcast live and tape-delayed sports/fine arts/school events, and create video news packages, commercials, public service announcements, and informative videos to be included in school broadcasts.

## COMMUNICATIONS TECHNOLOGIES DEPARTMENT COURSE OFFERINGS

### **(6530) Video Broadcasting III**

Grades 11 – 12

1 credit – Full year

### **(6535) Video Broadcasting III**

Grades 11 – 12

½ credit – 1 semester

Prerequisite: Video Broadcasting II

Students will apply concepts they learned in Video Broadcasting II as well as learn more hardware, software, and production processes used to create video and audio productions in order to produce all aspects and content of a regularly scheduled production as part of a production team. Productions could include a high school student-focused news and variety show, a radio or podcast show, a sports show, and/or commentary show. Students will also help broadcast live and tape-delayed sports/fine arts/school events, and create video news packages, commercials, public service announcements, and informative videos to be included in school broadcasts.

### **(9606) Student Help Desk**

Grades 10 – 12

½ credit – ½ year

### **(9605) Student Help Desk**

Grades 10 – 12

1 credit – full year

The Student Help Desk is a student technology innovation and integration course. The course is a hands on study of technology integration in an educational context. Students are required to assess problem sets throughout the day and define the best approach to addressing or solving the problem. In addition to solving problems for students and teachers, the help desk students will be required to complete and maintain several running projects that address problems or solutions in educational technology integration. The course also asks students to have a prior understanding of Apple OS, Microsoft Windows OS, and the iPad iOS. To be considered for Help Desk, students are required to interview with teacher, fill out an application and have two teacher recommendations. The members of the Upper Dauphin Area High School Tech Team will meet and approve all participants for this course. Application will be available in the late spring.

### **(6905) Yearbook**

Grades 9 – 12

½ credit – semester

### **(6910) Yearbook**

Grades 9 – 12

1 credit –full year

Prerequisite: 'B' or better in English and Teacher Recommendation

Students in journalism will work on various publications from the high school. They will develop their photography, writing, sales, communication technology, design and publication skills for publications including the yearbook. Students who choose to take this course must be good time managers, self-motivated, committed to working constructively with a team, willing to talk with others and follow up on their assigned stories beyond the classroom, including outside of the school day. This course can be taken as a full year course or a semester course.

## COMMUNICATIONS TECHNOLOGIES DEPARTMENT COURSE OFFERINGS

### Dual Enrollment Computer Course Listings

#### **(6438) HACC CIS 105 (Dual Enrollment Weighted)**

Grade 11 - 12

½ credit – 1 semester

3 college credits

This course is worth 3 credits from Harrisburg Area Community College if the student earns an average grade of an 'A' or 'B' for the semester. Student must purchase their own textbook and pass the required placement test for HACC in English, Reading, and Writing. This test will be given to students here at UDA. Tuition is \$225.00.

Introduction to Computer Applications is a fundamental course designed to survey general topics in the computer field. Topics include computer concepts, hardware and software applications, and emerging technologies. In this course, students will work individually and in groups to explore these topics. Emphasis is placed on providing experience for learning basic and advanced features of word processing, database management, spreadsheet, and presentation applications. This course takes the hands-on approach utilizing step-by-step instruction using various business and general interest topics. Students apply problem-solving skills to real-life situations through the use of the software applications.

#### **(PC6150) Penn College BWM150: Introduction to Web Page Development (Honors Weighted)**

Grades 11 – 12

1 credit – full year

3 college credits

Prerequisites: Students must purchase their own textbook and pass the required placement test to enroll in the course. 2.0 overall GPA or higher, 'C' or better in Algebra 1

Introductory coverage of the Internet and online Web technologies. Skills learned include how to plan, create, and maintain static web pages. 3 Credits (3 Lecture – 0 Lab).

#### **(PC6160) Penn College CIT160: Introduction to Programming (Honors Weighted)**

Grades 11 - 12

1 credit – full year

3 college credits

Prerequisite: 2.0 overall GPA or higher, 'B' or better in Precalculus, AND Algebra Placement Exam (score 4) OR SAT Math Score of 580

Introduction to problem-solving techniques, elementary programming and the implementation of these techniques.

## COMMUNICATIONS TECHNOLOGIES DEPARTMENT COURSE OFFERINGS

### **(PC6120) Penn College BIM120: Social Media in Business & Society (Honors Weighted)**

Grades 12

½ credit – 1 semester  
3 college credits

Prerequisites: Minimum 2.0 GPA

Examination of the strategic use of social media for personal, professional, and business communication, advertising, and marketing. Course work includes using various social media tools, creating and sharing content, and collaborating on group campaigns using social media for social change. Includes analysis of current and emerging social media tools from a personal and business prospective. In order for students to take this course, every student enrolled must pay \$80 (this may change if book price goes up) for the text and course platform.

### **(PCCSC132) Penn College CSC132: Introduction to Gaming and Simulation (Honors Weighted)**

Grades 11 - 12

1 credit – full year  
3 college credits

Prerequisite: 2.0 overall GPA or higher

Introductory topics include historical elements, genres, goals, players, story and world development, production process and roles. Study provides overall view of the game play experience and how that is implemented with various design components. Practical hands-on application includes using a simple game design environment to design and implement simple games. 3 Credits (3 Lecture) Enrollment requirement: (C) 2.0 overall GPA.

## CTE – Diversified Occupations Education Course Offerings

Completer of any CTE program requires 720 hours.

Concentrator of any CTE program requires 50% or 360 hours.

### **(9510) Diversified Occupations I**

Grade 12

1 credit – full year

This course deals with career exploration, acquisition, maintenance, advancement and entrepreneurship. It also deals with meeting adult responsibilities. This course may be taken as an elective BUT is required for students simultaneously enrolled in Diversified Occupations II or Elementary Education Internship – if the intern has already completed and passed Foundations in Education.

### **(9520) Diversified Occupations II**

Grade 12

3 credits – full year

The D.O. II program includes placement of the student at a business and/or local establishment for on-the-job training for ½ of each school day. Training agreements are arranged between the employer-trainer, student-learner, parent, and the school. Students are placed on the job by the employer/trainer through the job search process. The job site will comply with all federal and state labor laws. The classroom part of the course includes work as it is related to the individual's job and other related outcomes from the student's working environment. A portfolio will be required for each student to log hours worked and outcomes achieved from a pre-approved job site. Ongoing visitations and/or career counseling will take place throughout the school year with the D.O. Coordinator. Pre-approval for job sites should take place before the start of one's senior year.

## CTE – Welding Technology Course Offerings

The Welding Technology program provides students with training in oxy-acetylene cutting, AC/DC shielded metal arc welding, gouging, semi-automatic gas metal arc welding, flux core welding and tungsten inert gas welding. Students start with planning and layout work, then progress to setting up and operating welding and cutting (Oxy-Fuel, and Plasma) equipment. Training in the planning, layout, forming, joining, and fabrication of various shapes in light and heavy gauge metal and pipe is provided. The use of manuals, specification charts, and understanding the welding standards established by the American Welding Society and the American Society of Mechanical Engineers are also stressed. The students learn Shielded metal arc as well as Mig solid wire, Flux core, and Tig welding in all positions. Some of the metals we weld with are Carbon Steel, Aluminum, Stainless Steel, and Cast Iron. Emphasis is placed on safety as well as blueprint reading, properties of metal, metal identification, type and use of electrodes, welding rods, electrical principles, and welding symbols. Students are exposed to the use of specialized hand tools, shears, forming and shaping machines, drill presses, and metal cutting saws. Inspection and testing processes as well as procedures are also demonstrated and explained. The program is available to 10<sup>th</sup> through 12<sup>th</sup> grade students who have taken the prerequisite of basic welding (8013). Students completing all three levels of the Welding technology program would receive an opportunity to complete the American Welding Society certification. This is an industry credential that would support student job placement into the workforce after graduation.

Completer of any CTE program requires 1080 hours.

Concentrator of any CTE program requires 50% or 540 hours.

### **(8200) Level I Welding**

Grades 10 – 12

3 Credits – full year

Prerequisites: Basic Welding (8013)

The Level I Welding Technology program provides students with training in Occupational Safety, Principles of Welding, Weld Drawing and Symbols, Weld Inspection, Shielded Arc Welding (SMAW), Manual Oxy Fuel Cutting and Welding, Brazing and Soldering.

### **(8210) Level II Welding**

Grades 10 – 12

3 Credits – full year

Prerequisites: Level II Welding

The Level II Welding Technology program provides students with training in Oxy Fuel Cutting and Welding, Gas Metal Arc Welding, MIG Weld Safety/Operation, Flux Core Welding Safety, Plasma Cutting, Weld Drawing and Symbols, Weld Inspection, Weld Drawings and Symbols, Gas Metal Arc Welding (GMAW), Flux Core Arc Welding (FCAW), Mechanized Oxy Fuel Cutting, and Plasma Arc Cutting (PAC). This course also offers Employability Skills Training.

## Welding Technology Course Offerings

### **(8220) Level III Welding**

Grades 10 - 12

3 Credits – full year

Prerequisites: Level II Welding

The Level III Welding Technology program provides students with training in:

#### **OPTION 1: AWS D1.1 GTAW 3G Certification – Offered On Campus**

- TIG Weld Safety/Operation
- Carbon Arc Cutting Safety/Operation
- Brazing and Soldering Set Up/Operation
- 800s: Gas Tungsten Arc Cutting (GTAW)
- 1200s: Air Carbon Arc Cutting (CAC-A)
- 1300s Brazing and Soldering

#### **OPTION 2: Cooperative Education – In the Field**

Accountability Targets Achieve proficient or advanced on the Keystone Exams, graduate with a high school diploma, achieve Competent to Advanced on the NOCTI exam number, 4172, Welding. Success in Meeting Secondary Core Indicators.

### **(8230) Cooperative Education Class**

Grade 12

1 Credit – full year

Cooperative Education Class is a capstone course designed to assist students in the development of effective skills and attitudes through practical, advanced instruction in school and on the job through cooperative education. Students are released from school for their paid cooperative education work experience and participate in daily related classroom instruction. Classroom instruction focuses on providing students with job survival skills and career exploration skills related to the job and improving students' abilities to interact positively with others. For skills related to the job, refer to the skill development course sequences, the task list or related occupational skill standards of the desired occupational program. The course content includes the following broad areas of emphasis: further career education opportunities, planning for the future, job-seeking skills, personal development, human relationships, legal protection and responsibilities, economics and the job, organizations, and job termination. A qualified career and technical education coordinator is responsible for supervision. Written training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator. The coordinator, student, and employer assume compliance with federal, state, and local laws and regulations. This course is required for students simultaneously enrolled in Level III Welding Option 2: Cooperative Education.

## Department Course Grids

Number	Course ENGLISH	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
0209	Honors English I	1	X-(H)			
0309	Academic English I	1	X			
0210	Honors English II	1		X-(H)		
0310	Academic English II	1		X		
0111	Honors English III	1			X-(H)	
0311	Academic English III	1			X	
0112	Business English	1				X
PC0111	Penn College Honors English	1				X-(H)
0412	AP English	1				X-(AP)
0312	Academic English IV	1				X
0525	Keystone Literature Remediation	½		X	X	X
0709	Transitional English 9	1	X			
0710	Transitional English 10	1		X		
0711	Transitional English 11	1			X	
0712	Transitional English 12	1				X
0805	Functional English 9	1	X			
0806	Functional English 10	1		X		
0807	Functional English 11	1			X	
0808	Functional English 12	1				X
0901	Mythology	½		X	X	X
0905	Creative Writing	½	X	X	X	X
0906	Creative Writing	1	X	X	X	X

Number	Course MATHEMATICS	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
1313	Keystone Algebra 1 Remediation	½		X	X	
1910	Fundamentals of Mathematics	1	X			
1017	Algebra IA	1	X	X		
1015	Basic Geometry	1			X	
1019	Algebra IB	1		X	X	
4542	Consumer Mathematics	1				X
1013	Algebra I	1	X			
1414	Personal Finance	1				X
1014	Geometry	1	X	X	X	
1114	Honors Geometry	1	X-(H)	X-(H)	X-(H)	
1023	Academic Algebra II	1	X	X		
1123	Honors Algebra II	1	X-(H)	X-(H)		
1024	Precalculus	1		X	X	X
1224	Honors Precalculus	1		X-(H)	X-(H)	X-(H)
1118	Honors Calculus I	1			X-(H)	X-(H)
HU1220	Math 220 (Harrisburg Univ.)/AP Calculus II	1				X-(AP)
HU1120	Math 120 (Harrisburg Univ.)/College Algebra	1			X	X
1021	Statistics	1				X
1701	Transitional Math 9	1	X			
1705	Transitional Math 10	1		X		
1710	Transitional Math 11 (Keystone Algebra)	1			X	
1715	Transitional Math 12	1				X
1809	Functional Math 9	1	X			
1810	Functional Math 10	1		X		
1811	Functional Math 11	1			X	



1812	Functional Math 12	1				X
------	--------------------	---	--	--	--	---

Number	Course SCIENCE	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
2930	Honors Biology with Lab	1 ½	X-(H)			
2220	Introductory Chemistry	½	X			
8053	Intro to Animal, Plant & Soil Science	½	X	X		
2310	Earth Science	1		X	X	X
2800	Biology	1		X		
2820	General Biology	1		X		
2990	Keystone Bio Remediation	½		X	X	
2330	College Prep Chemistry w/ Lab	1½		X	X	X
2510	Anatomy & Physiology	1		X	X	X
2125	Advanced Placement Biology w/ Lab	1½			X-(AP)	X-(AP)
2340	College Prep Physics	1		X	X	X
2116	Honors Advanced Chemistry	½			X-(H)	X-(H)
2530	Astronomy	½		X	X	X
2560	Environmental Science	½		X	X	X
2350	Honors Electricity & Magnetism	½			X-(H)	X-(H)
2360	Honors Waves, Sound & Optics	½			X-(H)	X-(H)
2200	Introduction to Health Careers	½		X	X	X
PC2104	MTR104: Basics of Medical Terminology Penn College Dual Enrol.	½			X-(H)	X-(H)
PC2100	Penn College CHM100: Fundamentals of Chemistry Dual Enrollment	1 ½		X-(H)	X-(H)	X-(H)

Number	Course SOCIAL STUDIES	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
3010	Modern World History	1	X			
3210	Honors Modern World History	1	X-(H)			
3227	Honors American History I	1		X-(H)		
3026	American History I	1		X		
3228	AP United States History	1			X-(AP)	
3028	American History II	1			X	
3042	Intro to Economics	½		X	X	X
3050	Freedom: Understanding the Nation	½			X	X
3305	College Prep Principals of Microeconomics	½			X	X
3315	College Prep Principles of Macroeconomics	½			X	X
3060	Local History	½		X	X	X
3414	Personal Finance	1				X
7210	Honors Humanities 100 (NOT OFFERED in 2022-2023)	1			X-(H)	X-(H)
7220	Honors Humanities 101 (OFFERED in 2022-2023)	1			X-(H)	X-(H)
LC3550	Lackawanna College Soc 105 Intro to Sociology	½			X-(H)	X-(H)
LC3043	Lackawanna College Psych 105 Intro to Psychology	½			X-(H)	X-(H)

Number	Course BUSINESS	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
4511	Accounting I	1		X	X	X
4513	Accounting II	1			X	X
4550	Principles of Marketing	½		X	X	X
4570	Sports Entertainment and Marketing	½		X	X	X
4580	Essential Skills in the Business World	½	X	X	X	X
4414	Personal Finance	1				X
PC6105	Penn College MGT105: Introduction to Business Honors	½		X-(H)	X-(H)	X-(H)

Number	Course COMMUNICATIONS TECHNOLOGIES DEPT	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
6433	Computer Applications I	½	X	X	X	X
6434	Computer Applications II	½	X	X	X	X
6445	Computer Applications – Graphic and Technology Design	½	X	X	X	X
6438	CIS 105 (HACC Credit) Dual Enrollment	½			X-(H)	X-(H)
6480	Digital Media I – Video and Photography	½	X	X	X	X
6482	Digital Media II – Video and Photography	½	X	X	X	X
6510	Video Broadcasting I	1	X	X	X	X
6515	Video Broadcasting I	½	X	X	X	X
6520	Video Broadcasting II	1		X	X	X
6525	Video Broadcasting II	½		X	X	X
6530	Video Broadcasting III	1			X	X
6535	Video Broadcasting III	½			X	X
9605	Student Help Desk	1		X	X	X
9606	Student Help Desk	½		X	X	X
6905	Yearbook	½	X	X	X	X
6910	Yearbook	1	X	X	X	X
PC6150	BWM150: Introduction to Web Page Development Honors	1			X-(H)	X-(H)
PC6160	Introduction to Programming CIT 160	1			X-(H)	X-(H)
PC6120	Social Media in Business & Society BIM120	½				X-(H)
PCCSC 132	Introduction to Gaming & Simulation	1			X-(H)	X-(H)

Number	Course WORLD LANGUAGE	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
5021	French I - Online	1	X			
5022	French II - Online	1		X		
5023	French III - Online	1			X	
5224	Honors French IV - Online	1				X-(H)
5031	Spanish I	1	X			
5032	Spanish II	1		X		
5033	Spanish III	1			X	
5234	Honors Spanish IV	1				X-(H)
5041	German I – Online	1	X			
5042	German II - Online	1		X		

Number	Course BUILDING TRADES	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9010	Building Trades I	3		X	X	

9011	Building Trades II	3			X	X
9012	Building Trades III	3				X

Number	Course DIVERSIFIED OCCUPATIONS	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9510	Diversified Occupations I	1				X
9520	Diversified Occupations II	3				X

Number	Course PHYSICAL EDUCATION/HEALTH	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9091	Freshmen Health	½	X			
9092	Freshmen Physical Education	½	X			
9101	Sophomore Health	½		X		
9102	Sophomore Physical Education	½		X		
9111	Junior Wellness	½			X	
9150	Strength and Conditioning	½	X	X	X	X

Number	Course FAMILY/CONSUMER SCIENCE	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9215	Basic Cooking and Nutrition	½	X	X	X	X
9220	Foods and You	½		X	X	X
9240	L.I.F.E	½		X	X	X
9270	Child Development	½			X	X
9416	Consumer Strategies	½	X			

Number	Course INDUSTRIAL ARTS	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
8011	Basic Cabinetmaking	½	X	X	X	X
8311	Intermediate Cabinetmaking	1		X	X	X
8411	Advanced Cabinetmaking	1			X	X
9330	Engineering Drafting and Modeling I	½	X	X	X	X
9340	Engineering Drafting and Modeling II	½	X	X	X	X
9318	Architectural Drafting	1			X	X

Number	Course ART	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
7830	Studio (A/B)	½	X	X	X	X
7831	Studio Art (Sem)	½	X	X	X	X
7832	Studio Art (Full Year)	1	X	X	X	X

Number	Course MUSIC	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
7916	Foundations of Music Theory	½		X	X	X
7918	Honors Advanced Music Theory	½			X-(H)	X-(H)
7900	Choir Ensemble	½	X	X	X	X
7920	Piano/Keyboarding Technique	½	X	X	X	X
7902	Concert Band	½	X	X	X	X
7909	Instrumental Musicianship	½	X	X	X	X
7980	Music Appreciation	½	X	X	X	X
7950	Advanced Music Study	½		X	X	X
7945	Independent Music Study	½	X	X	X	X
7990	Broadway Musical Productions	½	X	X	X	X

Number	Course		GRADE 9	GRADE 10	GRADE 11	GRADE 12
<b>STUDENT ASSISTANTS</b>						
9600	Teacher Assistant	1	X	X	X	X
9601	Teacher Assistant	1/2	X	X	X	X
9540	Elementary Education Internship	3				X
9550	Foundations in Education	1			X	X

Number	Course	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
<b>STUDENT SERVICES</b> (Only students with an IEP may take these courses)						
9750	Resource		X	X	X	X
9751	Resource		X	X	X	X
9752	Resource		X	X	X	X

Number	Course	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
<b>AGRICULTURE AND NATURAL RESOURCES</b>						
8051	Intro to Agricultural Mechanics & Technology (*Sci)	1/2	X	X		
8053	Intro to Animal, Plant and Soil Science (*Sci)	1/2	X	X		
8013	Basic Welding	1/2	X	X	X	X
8014	Small Gas Engines	1/2		X	X	X
8120	Ag Engineering Technology	1/2		X	X	X
8017	Advanced Agriculture Mechanics	1/2		X	X	X
8021	Crop and Soil Science (*Sci)	1/2		X	X	X
8024	Forest and Wildlife Management	1/2		X	X	X
8026	Natural Resources Management	1/2		X	X	X
8031	Advanced Horticulture	1/2		X	X	X
8032	Greenhouse Production & Management	1/2		X	X	X
8135	Dairy, Livestock and Equine Management (Offered 2021-2022)	1/2		X	X	X
8125	Ag Business Management (NOT Offered 2021-2022)	1/2		X	X	X
8035	Animal Science (*Sci)	1/2		X	X	X
8036	Meat & Food Technology	1/2		X	X	X
8041	Supervised Agriculture Experience (A/B)	1/2		X	X	X
8042	Supervised Agriculture Experience (sem)	1/2		X	X	X
8043	Supervised Agriculture Experience	1		X	X	X

Number	Course	Credits	GRADE 9	GRADE 10	GRADE 11	GRADE 12
<b>Welding Technology</b>						
8200	Level I Welding	3		X	X	X

8210	Level II Welding	3		X	X	X
8220	Level III Welding	3		X	X	X
8230	Cooperative Education Class	1				X