

# **PROGRAM OF STUDIES**

2016-2017

William Allen High School  
Louis E. Dieruff High School  
Building 21 High School



School District of the City of Allentown  
Allentown, Pennsylvania

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## LETTER FROM THE SUPERINTENDENT

Dear Students,

The vision of the Allentown School District is to provide every student in the Allentown School District (ASD) with an individualized academic plan that leads to graduation and success in post-secondary education or a job paying a family-sustaining wage.

The Allentown School District is committed to offering you a unique high school experience tailored to your strengths and interests. Naturally, you should talk with your parents, guardians, teachers and mentors to guide your decisions and to answer your questions while planning your course work. To help attain your goals, the Allentown School District is committed to providing the requirements that will meet your selected post-secondary experience, whether it is college or career, by offering challenging courses that will prepare you for your future. As you begin, you will be required to demonstrate proficiency in Algebra I, English Literature and Biology on Keystone Exams.

Carefully read this Program of Studies, ask questions and discuss what is best for you so that no matter what your future plans are, you will have a solid foundation that allows flexibility. Please take note of the new Allentown School District Virtual Academy and the variety of courses that may complement your academic experience. While you may not have begun to think about your future career goals, it is absolutely necessary for you to prepare for such possibilities. Many students decide to enter careers later in life, and we want you to be ready.

Your future and our community's future depend on your high school achievements. We expect that you will leave high school with a resume full of academic, civic and creative achievements. Your resume is your springboard to the future.

The Allentown School District staff is here to assist, motivate and inspire you to achieve your personal aspirations and ambitions. We know you are capable and we are willing to support your academic choices. Best wishes for a successful high school experience!

Sincerely,



C. Russell Mayo, Ed.D., Superintendent

Carta del Superintendente

Estimados estudiantes.

La visión del Distrito Escolar de Allentown es proveer a cada estudiante en el Distrito (ASD) un plan académico educativo individualizado, que lleve al estudiante a graduarse de la secundaria y al mismo tiempo le provea éxito en una educación universitaria o un trabajo seglar el cual te ayudara a mantener una familia.

El Distrito Escolar de Allentown se compromete a ofrecerte una educación secundaria única, la cual estará ajustada a tus intereses y fortalezas. Naturalmente, deberías hablar con tus padres, guardianes o encargados, maestros y mentores para que ayuden a guiar tus decisiones y puedan contestar tus preguntas mientras planeas tu curso educativo. Para ayudarte a conseguir tus metas, el Distrito escolar de Allentown se compromete a proveerte todo lo que es requerido para que después de la secundaria estés preparado para tu futuro. Sea la Universidad o el mundo laboral, al ofrecerte cursos o clases que desafiaran tu intelecto te preparan para tu futuro. Para comenzar se requerirá que demuestres de tu parte conocimiento en Algebra I, Literatura Inglesa, Biología y Exámenes en Keystone.

Lee este programa de estudio detenidamente, haz preguntas y conversa con alguien de confianza para que sean cual sean tus planes, tengas un fundamento solido uno que permita flexibilidad si es necesario. Por favor, presta atención a la nueva Academia Virtual del Distrito de Allentown y la variedad de cursos que pueden complementar tu experiencia académica. Aunque tu tal vez no haz comenzado a pensar en cuanto a tu futuro y tus carreras académicas, es absolutamente esencial que te prepares para cada posibilidad. Muchos estudiantes deciden entrar al campo laboral mas tarde en su vida y queremos que estés preparado para ello.

Tu futuro y el futuro de nuestra comunidad depende de tus logros durante tu educación secundaria. Esperamos que finalices tu educación secundaria con un currículo lleno de logros académicos, cívicos y creativos. Tu currículo es tu trampolín hacia tu futuro.

El personal del Distrito Escolar de Allentown esta aquí para ayudarte, motivarte e inspirarte a lograr tus metas personales y ambiciones. Sabemos que eres capaz y estamos dispuestos a apoyarte en tus decisiones académicas. ¡Te deseamos que tengas éxito en tu educación secundaria!

Sinceramente,



C. Russell Mayo, Ed.D., Superintendent

## **BOARD GOALS**

### **Goal 1: Pathways to Success**

Through the *Pathways to Success*, ALL students will gain skills necessary for college or career readiness, including leadership and collaborative skills, positive work attitudes, analytical skills and creativity.

### **Goal 2: Balanced Curriculum, Instruction and Assessment**

ALL students will be engaged in learning through a balanced liberal arts curriculum, supported by rigorous, aligned and sequential instruction and assessment, focused on developing the whole child.

### **Goal 3: Safety Nets**

Barriers to student learning will be addressed consistently and promptly through an articulated continuum of support focused on increasing achievement and graduation rates for ALL students.

### **Goal 4: Community Engagement**

ASD will engage the community in supporting the academic growth, physical and social development, and career readiness of ALL students.

### **Goal 5: Student-Centered Decision Making**

Each student will be surrounded by a network of District staff focused on meeting the academic, social and emotional needs of the whole child.

## **Allentown School District Mission Statement**

To provide safe, rigorous, and engaging educational experiences that prepare *all* students to excel in learning and life.

## **Allentown School District Vision Statement**

The Allentown School District's Pathways to Success vision provides every student in the Allentown School District (ASD) with an individualized academic plan that leads to graduation and success in post-secondary education or a job paying a family-sustaining wage.

**WILLIAM ALLEN HIGH SCHOOL**

26 N. 17<sup>th</sup> St.  
Allentown, PA 18104  
484-765-5000

**Administration**

Luke Shafnisky  
Principal

Kenneth Fritz  
Assistant Principal

Corey Cowen  
Assistant Principal

Lilly Figueroa  
Assistant Principal

Scott R. Fisher  
Assistant Principal

Michael Bolinsky  
Assistant Principal

Jeremy Thatcher  
Assistant Principal

**Guidance Counselors**

Kenneth Kuhns, Chairperson

Craig Borrell  
Brooke Dietrick  
Allison Hausman  
Kristin Mosser  
Rina Duggan

Dawn Tehonica  
Craig Smith  
Stacy Long  
Vanessa VanNorman

**LOUIS E. DIERUFF HIGH SCHOOL**

815 N. Irving St.  
Allentown, PA 18109  
484-765-5500

**Administration**

Susan Bocian  
Principal

Michael Makhoul  
Assistant Principal

Michael Marcks  
Assistant Principal

Patrick McNulty  
Assistant Principal

Joshua Thatcher  
Assistant Principal

**Guidance Counselors**

Janet Schnalzer, Chairperson

Olga Cosme  
Beatriz Gambourg-Schuster  
Maria Markunas

Jeffrey Penizotto  
Rochelle Spokane  
Jeanne Grieger

**BUILDING 21 HIGH SCHOOL**

265 Lehigh St.  
Allentown, PA 18105  
484-765-4400

**Administration**

Janine Mathesz  
Founding School Leader

Jose Rosado, Jr.  
Assistant Founding School Leader

**Guidance Counselor**

Nichol Gibbs

**GRADUATION REQUIREMENTS FOR THE CLASSES OF 2017-2018**

**1. Credit Requirements**

| <b><u>SUBJECT AREA FOR CREDIT</u></b>      | <b><u>NUMBER OF CREDITS 2017</u></b> |
|--|--------------------------------------|
| English                                    | 4.0                                  |
| Social Studies                             | 3.5                                  |
| Mathematics                                | 3.0                                  |
| Science                                    | 3.0                                  |
| Arts & Humanities<br>(at least .5 of each) | 2.0                                  |
| Health                                     | 0.5                                  |
| Physical Education                         | 0.8                                  |
| Computer Application for Career Planning   | 0.5                                  |
| Graduation Project                         | NA                                   |
| Electives                                  | 5.0                                  |
| <b>Total Minimum Credits</b>               | <b>22.3</b>                          |

**LCTI STUDENTS  
(Full & Half Day)**

| <b><u>SUBJECT AREA FOR CREDIT</u></b>      | <b><u>NUMBER OF CREDITS 2017</u></b> |
|--|--------------------------------------|
| English                                    | 4.0                                  |
| Social Studies                             | 3.0                                  |
| Mathematics                                | 3.0                                  |
| Science                                    | 3.0                                  |
| Arts & Humanities<br>(at least .5 of each) | 2.0                                  |
| Health                                     | 0.5                                  |
| Physical Education                         | 0.8                                  |
| Computer Application for Career Planning   | 0.5                                  |
| Graduation Project                         | NA                                   |
| LCTI Electives                             | 5.0                                  |
| <b>Total Minimum Credits</b>               | <b>21.8</b>                          |

Students will attain graduation by demonstrating proficiency in standards-based courses and instructional units. Students shall be provided with planned instruction as a separate course or as an instructional unit within a course or other interdisciplinary instructional activity:

- A. English Language Arts, integrating reading, writing, listening, speaking, literature and grammar.
- B. Mathematics, including problem-solving, mathematical reasoning, algebra, geometry and concepts of calculus.
- C. Science and technology, including participation in hands-on experiments and at least one laboratory science chosen from life sciences, earth and space sciences, chemical sciences, physical sciences and agricultural sciences.
- D. Social studies (civics and government, economics, geography and history, including the history and cultures of the United States, the Commonwealth and the world).
- E. Environment and ecology, including scientific, social, political and economic aspects of ecology.
- F. The arts, including art, music, dance, theatre and humanities.
- G. Use of applications of microcomputers and software, including word processing, database, spreadsheets and telecommunications; and information skills, including access to traditional and electronic information sources, computer use and research.

- H. Health, safety and physical education, including instruction in concepts and skills, which affect personal, family, and community health and safety, nutrition, physical fitness, movement concepts, motor skill development, safety in physical activity settings, and the prevention of alcohol, chemical, and tobacco abuse.
- I. Family and consumer science, including principles of consumer behavior and basic knowledge of child health, childcare and early literacy skill development.
- J. Vocational-technical education under § 4.3 and 4.31—4.35.
- K. Business education, including courses to assist students in developing business and information technology skills.
- L. World languages under § 4.25 (relating to languages).
- M. Technology education, incorporating technological problem solving and the impacts of technology on individuals and society.
- N. College-level advanced placement courses may be offered as planned instruction in the high school curriculum.
- O. This section does not preclude the teaching of other planned instruction designed to achieve a school district's, including a charter school's, academic standards.

**2. Pennsylvania Department of Education Assessment Requirements**

A. Keystone Exam Requirements:

For the Graduating classes of 2017 and beyond, students must demonstrate proficiency on the Literature, Algebra 1, and Biology Keystone Exam to be eligible for graduation, as required by the Pennsylvania Department of Education. A student who does not attain proficiency on the Keystone Exams in Literature, Algebra 1 and/or Biology, will be provided remediation, and will be given additional opportunities to re-take the Keystone Exams and/or the Pennsylvania Project-based Assessment.

**3. Other Requirements**

A. Transition Plan: The Allentown School District Board of Directors has determined that in preparation for post-secondary experiences, 100% of ASD secondary students will complete a post-secondary transition plan. The Allentown School District believes that the transition plan process is a necessary and supportive framework for students and their families to make the best choices for their educational experiences while at the secondary level.

(1) The transition plan will be required to include maintenance of a career portfolio and college/career presentations/workshops/experiences.

(2) Eligible students with IEPs will follow the legal guidelines of IDEA §300.43, specifically addressing the transition activities as per this requirement.

B. Upon graduating ASD students will have a post-secondary college and career portfolio that includes an autobiographical essay and a resume highlighting a student's academic achievement, extracurricular activities, leadership experience, community and civic service.

C. All ASD graduation requirements must be met by students enrolled in the ESOL program. Transcripts from other countries will be reviewed when students arrive in the district, and wherever possible, credit will be granted for courses for which there is an equivalent. These credits will count toward fulfillment of the graduation requirement.

**COMPETENCY ATTAINMENT**

Regular student attendance, following the Code of Conduct and active participation in classes are important for students to be successful in the Allentown School District. The Allentown School District provides opportunities for students to participate in tutoring programs to address competency attainment. These programs are offered during the school year and the summer. It is important to us that students remain in school so they may graduate.

ALLENTOWN SCHOOL DISTRICT CURRICULAR FRAMEWORK

**Allentown School District Assessment Requirements**

Students must demonstrate proficiency on the Literature, Algebra I, and Biology Keystone Exams. The Literature Keystone Exam will be administered at the end of English II. The Algebra I and Biology Keystone Exams will be given at the end of each respective course. For the graduating classes of 2017 and beyond, students must demonstrate proficiency on the Literature, Algebra I, and Biology Keystone Exams to be eligible for graduation, as required by the Pennsylvania Department of Education. A student who does not attain proficiency on the Keystone Exams in Literature, Algebra I and/or Biology, will be provided with remediation, and be given additional opportunities to re-take the Keystone Exams and/or Pennsylvania project-based assessment.

| <b>Middle School Core Academic Program</b>   |  |                                  |   |  |                               |
|--|--|----------------------------------|---|--|-------------------------------|
| <b>Middle School Core Courses</b>  | <b>Reading</b>                           | <b>English/LA</b>                | <b>Social Studies</b>                       | <b>Math</b>  | <b>Science</b>                |
|  | 6 <sup>th</sup> Grade English/Reading    |                                  | 6 <sup>th</sup> Grade Social Studies        | Math 6, Advanced Math 6, or Advanced Pre-Algebra 6         | 6 <sup>th</sup> Grade Science |
|  | <b>7<sup>th</sup> Grade Core Content</b> | 7 <sup>th</sup> Grade English/LA | 7 <sup>th</sup> Grade Social Studies        | Math 7, Advanced Pre-Algebra 7, or Advanced Algebra I*     | 7 <sup>th</sup> Grade Science |
|  | <b>8<sup>th</sup> Grade Core Content</b> | 8 <sup>th</sup> Grade English/LA | 8 <sup>th</sup> Grade Civics and Government | Pre-Algebra 8, Advanced Algebra I*, or Advanced Algebra II | 8 <sup>th</sup> Grade Science |
| <p style="text-align: center;">*Indicates course includes a Keystone Exam.<br/>                     Gifted/Advanced students will follow the academic program related to their academic strengths.</p> |  |                                  |   |  |                               |

# Grade 9 Academic Program

| <b>9<sup>TH</sup> GRADE COURSES</b> | <b>Subject</b>               | <b>Traditional</b>   | <b>LCTI Option (Half Day)</b>  | <b>Advanced</b>  |
|-------------------------------------|------------------------------|--|--------------------------------|--|
|                                     | <b>Mathematics</b>           | Developmental Algebra*<br>or<br>Algebra I*                   | Algebra I*<br>or<br>Algebra II | Geometry, or<br>Advanced<br>Geometry, or<br>Algebra II, or<br>Advanced<br>Algebra II |
|                                     | <b>Science</b>               | Physical<br>Science  | Physical<br>Science            | Advanced<br>Biology*   |
|                                     | <b>Social Studies</b>        | US History I   | US History I                   | Advanced US<br>History I   |
|                                     | <b>English</b>               | English I  | English I                      | Advanced<br>English I  |
|                                     | <b>Health</b>                | Health   | Wellness/<br>Fitness           | Health   |
|                                     | <b>Physical Education</b>    | Phys. Ed.  |                                | Phys. Ed.  |
|                                     | <b>Computer Applications</b> | Computer App   | Computer App                   | Computer App   |
|                                     | <b>Electives</b>             | Electives,<br>Virtual<br>Academy<br>Electives or<br>READ 180 |                                | Electives,<br>Virtual<br>Academy<br>Electives  |

\*Indicates a Keystone Exam is given at the end of the course.

## Grade 10 Academic Program

| <b>10<sup>TH</sup> GRADE COURSES</b> | <b>Subject</b>            | <b>Traditional</b>  | <b>LCTI<br/>Option<br/>(Full Day)</b>   | <b>LCTI<br/>Option<br/>(Half Day)</b>                                | <b>Advanced</b>  |
|--------------------------------------|---------------------------|---|---|--|--|
|                                      | <b>Mathematics</b>        | Foundations of Algebra II, Algebra II, Applied Geometry, Geometry or Advanced Geometry, | Geometry                                | Foundations of Algebra II, Algebra II, Applied Geometry or Geometry, | Advanced Geometry, Algebra II, Advanced Algebra II, Algebra III/ Trigonometry/ Analytical Geometry, or Advanced Algebra III/ Trigonometry/ Analytical Geometry |
|                                      | <b>Science</b>            | Biology*  | Biology*                                | Biology*   | Advanced Chemistry/ Chemistry  |
|                                      | <b>Social Studies</b>     | World History   | N/A                                     | American Studies II  | AP World History or World History  |
|                                      | <b>English</b>            | English II*   | English II*                             | English II*  | Advanced English II*   |
|                                      | <b>Physical Education</b> | Phys Ed   | Literacy Advantage/ Math Apprenticeship | N/A  | Phys Ed  |
|                                      | <b>Electives</b>          | Electives, Virtual Academy Electives  | -----<br>Level I LAB                    | Level I Tech LAB   | Electives, Virtual Academy Electives   |

\*Indicates a Keystone Exam is given at the end of the course.

## Grade 11 Academic Program

| 11 <sup>TH</sup> GRADE COURSES | Subject                       | Traditional  | LCTI<br>Option<br>(Full Day)                                       | LCTI<br>Option<br>(Half Day)                                | Collegiate<br>Program<br>Experience/<br>Dual<br>Enrollment   | Collegiate<br>Program<br>Experience/<br>Advanced<br>Placement   |
|--------------------------------|-------------------------------|--|--|---|--|---|
|                                | <b>Mathematics</b>            | Applied<br>Geometry,<br>Algebra II<br>or<br>Survey of<br>Mathematics,<br>Geometry,<br>Advanced<br>Geometry | Algebra III/<br>Trigonometry<br>or<br>Geometry<br>or<br>Algebra II | Applied<br>Geometry or<br>Geometry,<br>Advanced<br>Geometry | Pre-calculus,<br>College<br>English I,<br>Intro to<br>Composition &<br>Applications,<br>Intro to<br>Psychology,<br>US History<br>since<br>Reconstruction<br><br>Lab Science,<br>British<br>Literature,<br>Interpersonal<br>Communication<br>Introduction to<br>Art,<br>Physical<br>Education | Advanced<br>Algebra III/<br>Trigonometry/<br>Analytical<br>Geometry, AP<br>Statistics,<br>AP Calculus AB,<br>or<br>AP Calculus BC |
|                                | <b>Science</b>                | Chemistry or<br>Environmental<br>Science or<br>Physics   | Chemistry<br>or<br>Physics   | Chemistry or<br>Physics or<br>Environmental<br>Science      |  | AP Physics 1,<br>AP Chemistry,<br>AP Biology, or<br>AP<br>Environmental<br>Science  |
|                                | <b>Social<br/>Studies</b>     | US History II  | World<br>Cultures  | World<br>Cultures   |  | AP US History   |
|                                | <b>English</b>                | English III  | Integrated<br>American<br>History &<br>Literature                  | English III   |  | AP English<br>Language &<br>Composition   |
|                                | <b>Physical<br/>Education</b> | Physical<br>Education  | Wellness<br>Fitness  | Wellness<br>Fitness   |  | Optional AP<br>Electives,<br>Virtual Academy<br>AP Electives  |
|                                | <b>Electives</b>              | Electives,<br>Virtual<br>Academy<br>Electives  | Technical<br>LAB   | Technical<br>LAB  |  |   |

# Grade 12 Academic Program

| 12 <sup>TH</sup> GRADE COURSES | Subject                       | Traditional   | LCTI<br>Option<br>(Full Day)  | LCTI<br>Option<br>(Half Day)  | Collegiate<br>Program<br>Experience/<br>Dual<br>Enrollment  | Collegiate<br>Program<br>Experience/<br>Advanced<br>Placement                                       |
|--------------------------------|-------------------------------|---|---|---|---|---|
|                                | <b>Mathematics</b>            | Algebra III/<br>Trigonometry/<br>Analytical<br>Geometry<br>or<br>Statistics<br>or<br>Algebra II<br>or<br>Survey of<br>Mathematics | <b>Choose <u>one</u><br/>Science or<br/>Math:</b><br>Biology,<br>Chemistry,<br>Physics,<br>Geometry,<br>Algebra II or<br>Algebra III<br>Trigonometry<br>Earth &<br>Space,<br>Chemistry,<br>Physics II | Emerging<br>Health<br>Professionals<br>Program<br><br>Emerging<br>Engineering<br>Professionals<br>Program | College<br>English II,<br>Lab Science,<br>Speech,<br>Probability &<br>Statistics,<br>Intro to<br>Sociology<br><br>Calculus &<br>Analytic<br>Geometry I,<br>Foreign<br>Language,<br>State & Local<br>Government,<br>Human<br>Growth and<br>Development,<br>Modern Social<br>Problems | AP Calculus AB<br>or<br>AP Calculus BC<br>or<br>AP Statistics                                       |
|                                | <b>Science</b>                | Chemistry<br>or<br>Physics  |   |   |   | AP Physics 2,<br>AP Physics C,<br>AP Chemistry,<br>AP Biology, or<br>AP<br>Environmental<br>Science |
|                                | <b>Social<br/>Studies</b>     | US<br>Government  | American<br>Govt./ Civics/<br>Econ  | American<br>Govt./ Civics/<br>Econ  |   | AP Government<br>& AP Economics   |
|                                | <b>English</b>                | English IV  | English Lang<br>Arts IV   | English Lang<br>Arts IV   |   | AP English<br>Literature &<br>Composition   |
|                                | <b>Physical<br/>Education</b> | Electives   | Wellness<br>Fitness   | Physical<br>Education   |   | Optional AP<br>Electives,<br>Virtual Academy<br>AP Electives  |
|                                | <b>Electives</b>              | Electives,<br>Virtual<br>Academy<br>Electives   | Technical<br>LAB  | Technical<br>LAB  |   |   |

## PATHWAYS TO SUCCESS

The Pathways to Success – Allentown School District’s Framework affords all students the opportunity to select a variety of pathways based on their successful completion and proficiency on each of the District Assessments. Students will be able to select one or more of the following pathways:

- The Collegiate Program experience
- LCTI Options
- Apprenticeships & Career Options
- Independent Study
- Virtual Options

The Collegiate Program experience provides students who are academically gifted and/or advanced with dual enrollment courses through area colleges and universities. In addition, these students can also take Advanced Placement (AP) courses as sponsored by the College Board.

With the LCTI Options, students can select as a pathway Lehigh County Technical Institute (LCTI) courses and programs or enrollment in a technical college.

The Apprenticeships & Career Options pathway will allow students entry into an assortment of apprenticeship programs and hands-on opportunities. Students will receive invaluable site-based learning experiences provided by area businesses and industry leaders.

The Independent Study option will allow students to add to the curriculum established by the core discipline areas. These options are provided to students who have a strong desire to study a subject in depth. Students interested in this option must collaborate with their guidance counselor and prospective teacher(s) in developing an independent study contract, objectives, content outline, and end-of-course assessment.

Virtual options are on-line course offerings using state of the art learning methods via technology provided through the ASD Virtual Academy. This initiative enables us to offer courses that might not otherwise be available to students. There are many reasons a student may opt for taking courses through the ASD Virtual Academy; enrichment, students can make up a failed course, courses that can assist students in further study in a particular area of student interest, homebound tutoring, or perhaps a course does not fit into a student’s schedule.

## COLLEGIATE PROGRAM EXPERIENCE

The Collegiate Program experience of the Allentown School District (ASD) will provide students with opportunities to take Advanced Placement and Dual Enrollment courses at each of its high schools. The Collegiate program is designed to give students greater opportunities to complete high school with outstanding preparation for college and career.

### 1. Advanced Placement

The Advanced Placement Program (AP), administered by The College Board, offers college-level courses that are taught at local high schools by those high school teachers. In 1955 the AP program was initiated in the United States. Since then, approximately 8 million students have taken advantage of this program. The ASD offers 19 Advanced Placement courses to its students. The AP program allows students to experience postsecondary coursework and its increased academic rigor while still in enrolled in the supportive environment of their local high school. The advantages of taking AP courses for students are many:

- College credit can be given to students who pass the AP exam (passing is generally considered scoring three or higher out of five, though some schools only accept a four or a five score for credit).
- Students master in-depth content at the college level more easily after completing AP courses by acquiring sophisticated academic skills and increased self-confidence in preparation for college.
- Advanced Placement courses offer an accelerated skill development curve. AP courses can help students acquire the skills and habits they will need to be successful in college. Students will improve their writing skills, sharpen problem-solving abilities, and develop time management skills, discipline, and study habits.
- Real college conditioning– Research consistently shows that students who are successful in AP typically experience greater academic success in college than similar students who do not participate in AP.
- Advanced Placement courses offer students a seamless pathway between high school and college.
- Students taking one AP course will be required to take that course’s AP exam at the conclusion of the course. Students taking two or more AP courses will be required to take a minimum of two AP exams at the conclusion of their courses. Students taking more than two AP courses can choose the exams that are required. Students may elect to take an AP exam for all AP courses completed; however, they will only be required by the ASD to take two exams. The costs of these exams are assumed by the ASD.
- Advanced Placement Courses receive a .3 weighting for course completion with a “B” grade or higher. The following Advanced Placement Courses are offered in our high schools and/or the ASD Virtual Academy:

**English:** Language & Composition and Literature & Composition

**Math:** Calculus AB, Calculus BC and Statistics

**Science:** Biology, Chemistry, Environmental Science, Physics 1, Physics 2, and Physics C

**Social Studies:** World History, US History, US Government & Politics and Macroeconomics

**Electives:** Psychology, Studio Art, Art History, Music Theory, German Language, Spanish Literature

## 2. Dual Enrollment

The Dual Enrollment program provides students with opportunities to take college course offerings from both Lehigh County Community College (LCCC) and Penn State University. Students are simultaneously enrolled at both their home high school and either LCCC or Penn State. Tuition will be paid by the ASD for students taking dual enrollment courses through LCCC. Tuition would be paid by students taking dual enrollment offerings through Penn State. The benefits for students successfully completing dual enrollment courses include:

- Possible attainment of an Associate's Degree (61 College Credits) from LCCC
- Students are able to receive college credit while in high school at no cost, saving students and parents significant tuition costs towards college.
- High school students are able to experience the dynamics of a college classroom before actually entering college.
- Students easily transition from high school to college with a working knowledge of what to expect.
- Successful completion of dual enrollment courses can shorten the time to college degree completion.
- College credit is earned at the same time as high school credit.
- Helps students narrow down their career interests by giving them the chance to explore a variety of fields at the college level.
- Dual Enrollment Courses receive a .2 weighting for course completion with a grade of "C" or higher.
- The following Dual Enrollment Courses are offered to ASD students through LCCC:

**English:** British Literature, College English I & II

**Math:** Probability & Statistics, Pre-calculus, and Calculus & Analytic Geometry

**Science:** Introduction to Environmental Science, Anatomy & Physiology I, Chemistry and Physics

**Social Studies:** US History since Reconstruction and State & Local Government

**Electives:** Speech, Intro to Sociology, Foreign Language, Human Growth and Development, Modern Social Problems, Intro to Computers & Applications, Intro to Psychology, Intro to Art, Interpersonal Communication, and Physical Education.

**Emerging Health Professionals** courses (see program description below)

Pennsylvania has created a seamless statewide transfer and articulation system, which requires Pennsylvania's 14 community colleges and the 14 universities in the Pennsylvania State System of Higher Education (PASSHE) to adopt mandatory equivalency standards for the purpose of creating at least 30 hours of foundation courses that can be easily transferred to any of the participating institutions. This means that an ASD student electing to take Dual Enrollment Courses can earn up to 30 credits towards a Bachelor's Degree while still in high school and save one year of tuition costs at a state or state related university.

### LEHIGH CAREER & TECHNICAL INSTITUTE

The Allentown School District and the Lehigh Career and Technical Institute (LCTI) have developed a program called Career Pathways to help all students plan realistically for a promising future. At the high school level, the program is designed to guide students to choose a career cluster based on their specific interests and abilities and to select courses appropriate for that cluster. LCTI students can choose either a traditional or a technical academic pathway within any of the following career clusters: Arts & Humanities, Business and Communication Technology, Engineering & Industrial Technology, and Health & Human Services. Specific programs offering students dual enrollment opportunities through Penn State University and/or LCCC, include the following:

- **Emerging Health Professionals:** This is a dual enrollment course involving Penn State and LCTI. The program is based at Lehigh Valley Hospital/Health Network and Penn State Lehigh Valley. Students take both dual enrollment Anatomy & Physiology I (Fall semester) and II (spring semester) at Penn State three days a week. Upon successful completion of these dual enrollment courses, students will earn six college credits. Students gain real world experience in health careers by shadowing hospital personnel in several departments. This competitive program requires an application evaluation and committee review. **This program is only available to senior students.**

Additional specific information about LCTI's programming is available on page 56 of this document or by visiting [www.lcti.org](http://www.lcti.org).

## **VIRTUAL COURSES**

The Allentown School District (ASD) is a leader in K-12 for preparing our students for the 21st century. ASD Virtual Academy offers high quality, internet-delivered high school courses that equip ASD students to thrive in the complex life and work environment of the 21st century. This initiative enables us to offer courses that might not otherwise be available. Virtual courses may be requested through your counselor for the following reasons:

- Enrichment
- Make up a failed course
- Course does not fit into your schedule
- Homebound tutoring

## **INDEPENDENT STUDY**

Independent study programs are intended to add to the curriculum established by each of the core discipline areas. An independent study is intended to encompass rigorous learning activities that are aligned to standards. This is for students who have a strong desire to study a subject in depth. Students interested in securing an independent study must contact prospective teachers to collaborate on an independent study contract including standards, objectives and a content outline that must be accomplished by the end of the course. The independent study contract must also identify resource materials and learning strategies by which the student can master the stated objectives. The following guidelines must be adhered to when requesting independent study programs:

- A. Independent study programs will not be approved for courses that are already offered on the master schedule.
- B. Independent study programs will not be assigned a weighted grade unless the program being offered is an advanced placement or Advanced course not offered through the master schedule. Also, it must receive administrative approval.
- C. Independent study program contracts must be approved for a student each semester.
- D. Only one independent study program will be approved for a student each semester.
- E. Independent study programs do not replace selected courses on a student's academic schedule. An independent study is considered an addition to the required courses needed for a complete academic schedule.
- F. The amount of effort to fulfill the independent study contract will be comparable in expectations to rigorous high school academic courses.

Prior written approval of the principal, curriculum coordinator and the parent or guardian is required on the written contract before the independent study begins. All independent study programs will operate under the supervision of a faculty member and reviewed by the appropriate curriculum coordinator for the fulfillment of the contract. Fully approved contracts for independent study programs will be submitted to the school counselor during the regular registration period established for all course selections for the upcoming year. Credit will be granted for the independent study program only if an approved contract is on file in the Counseling Office. Independent study program grades will be recorded each marking period and a final grade will appear on the student's high school transcript.

## **GIFTED**

The District provides gifted support services for eligible students meeting the PA Department of Education guidelines. Students designated as gifted have a Gifted Individualized Education Plan (GIEP) that is developed yearly.

Gifted education is based on the unique needs of the student, not solely on the student's classification. The gifted student may participate in Advanced Placement or Advanced classes, both or none, as deemed appropriate by the student, parent, and teachers when the GIEP is developed at a joint meeting. Gifted is defined as outstanding intellect and creative ability that requires specially designed instruction or support services, or both.

Students are encouraged to select courses of academic rigor that support their individual ability, interest, and achievement as they develop their post-secondary plan.

A student eligible for gifted support services has the opportunity to participate in any available course offerings. The gifted identification does not preclude the student from any regular education programming including academies and Lehigh Career and Technical Institute (LCTI).

## ADVANCED COURSES

Advanced classes in selected subjects receive .1 weighting and are offered in the freshman and sophomore years as preparation for the Collegiate Program experience. To remain in an advanced class, a student must maintain a B average. If a student cannot maintain this average during the first semester, he/she may be transferred to the corresponding course developed for the college-bound student. If the student's final average in an advanced subject falls below a B, he/she may not be permitted to continue in the advanced class of that subject the following year. A grade of B or better is required to receive the extra .1 weighting. Advanced courses are available in the following subjects:

**English:** English I & II

**Math:** Algebra II, Geometry, Analytic Geometry, Trigonometry, Algebra III

**Science:** Biology & Chemistry

**Social Studies:** US History I

## SPECIAL EDUCATION PROGRAMS AND SERVICES

Under Pennsylvania and federal laws, a student who meets the eligibility requirements for special education has the right to participate in the general curriculum in the least restrictive environment (LRE). The program of support and services is described within the student's Individualized Education Program (IEP). Providing a free appropriate public education (FAPE) for a student with a disability begins with the consideration of services in the LRE. The organization and delivery of special education services are planned in a flexible and responsive manner to accommodate the student's special needs of eligibility without removing the student, unnecessarily, from the general curriculum. Supplementary aids and services received by the student are dependent upon his/her individual need. The Allentown School District promotes inclusive opportunities for all students.

The students shall participate in the general curriculum to the maximum extent appropriate, which may be adapted or modified. Eligible students may also be provided instruction through supplemental curricula. Supplemental studies are listed within this Program of Studies. A supplemental study may be selected when the curriculum option is deemed not providing enough support. A program may be offered when the curriculum needs to be intensified in order to meet the instructional needs. The level of instruction is geared to the ability and needs of the student through the IEP. Supplemental studies are formed around the learning needs of the student whose programs are determined by his/her IEP. This plan is reviewed annually and revised as needed.

Transition planning begins at least at age 14. The IEP team will decide what kinds of courses will prepare the student for life after high school through the transition planning process. The IEP team, including the student and parent, will plan transition activities to prepare the student for post-high school experiences. Discussions during transition planning include: college or post-high school training; employment exploration; and independent living including recreation or leisure activities. This transition planning includes consideration of the types of courses the student will take during high school. Early planning encourages a coordinated effort between the present and future goals.

Students are encouraged to prepare for a post-high school education, whether it is college or a trade/technical school. Students who are considering college are encouraged to take the PSAT and SAT assessments, with or without accommodations. Some students may elect a vocational curriculum and attend Lehigh Career and Technical Institute (LCTI). LCTI offers a full range of programs, which may include the Service Occupations Program.

A student with an IEP may select dual enrollment (DE) or advanced placement (AP) courses provided he or she meets the prerequisites for the selected courses. In-school support is available to students in the DE and AP courses.

All students receiving special education services are guaranteed the right for the opportunity to earn a high school diploma. To be awarded a diploma, the eligible student must successfully complete all required courses and credits, and meet performance standards on assessments. An IEP team may determine that an eligible student will graduate through the IEP process.

Any student with a disability whose individualized education program as established pursuant to 22 Pa. Code §14.131 (relating to IEP) and ASD Policy No. 217 prescribes continued special education programs beyond the fourth year of high school, shall be permitted to participate in the commencement ceremonies with the student's graduating class. The student receive a certificate of attendance, provided that the student has attended four (4) years of high school regardless of whether the student has completed the individualized program. A certificate of attendance is not a high school diploma.

## NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA) APPROVED COURSES

Any Student athlete interested in playing a sport at a Division I or Division II college or university must be registered with the Clearinghouse. The NCAA encourages on-line registration at [www.eligibilitycenter.org](http://www.eligibilitycenter.org). To learn more about NCAA eligibility guidelines, please use the following link - <http://www.ncaapublications.com/productdownloads/CB11.pdf>.





**120 DE \*COLLEGE ENGLISH I – DUAL ENROLLMENT** *Prerequisite: COMPASS Writing Score of 66 or exemptions - SAT or PSAT – Critical Reading 490; PSSA Writing 1806; PSSA Reading 1492*

3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

In College English I (ENG 105), students write essays, develop a research paper, and master library skills. Students strive for sound logic, effective use of details, appropriate diction, and correct grammar and mechanics. Students study models of good writing, which include student essays as well as professionally written essays.

**121 ENGLISH III**

5 Periods                                      1 Year    1.0 Credit    Grade 11

English III is a course for all juniors. This course concentrates on the effectiveness of expression in expository writing, and in both formal and informal oral communication. Various works of American literature are studied. Research skills are taught and students are required to complete a research paper in which they demonstrate critical thinking and mastery of the conventions of written English. Vocabulary study is stressed, and college-bound students prepare for the SAT and, if desired, SAT II examinations. Reading skills and strategies are emphasized. Students will take the PSAT/NMSQT examination in October. There is no cost for this examination.

**120A \*ENGLISH LANGUAGE AND COMPOSITION – ADVANCED PLACEMENT**

5 Periods                                      1 Year    1.0 Credit    Grade 11

AP English Language and Composition is a college level course. Students study and write in a variety of genres, with a particular emphasis on expository, analytical and argumentative texts. Students become aware of their own composing processes, from the exploration of ideas through the revision and publication stages. This course will prepare students for the College Board’s Advanced Placement English Language and Composition Examination by enabling them to read, comprehend, and write about complex texts, while developing further communication skills on a college level. Colleges may grant credits for above-average scores on this examination.

**131 ENGLISH IV**

5 Periods                                      1 Year    1.0 Credit    Grade 12

English IV is a course for all seniors. Students write in a variety of genres, from literary responses to research reports. Students read and analyze works of British literature, including *Beowulf*, *The Canterbury Tales*, and *Macbeth*. The reading skills and strategies necessary for post-high school success are reviewed. College-bound students prepare to take the SAT examination.

**130 DE \*COLLEGE ENGLISH II- DUAL ENROLLMENT** *Prerequisite: 120 DE College English I*

3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

College English II (ENG 106) is a writing course in which students write analytical essays about literature (short fiction, drama, novels, and poetry). Students strive for good logic, effective use of details, correct grammar and mechanics, and appropriate vocabulary and diction.

**130A \*ENGLISH LITERATURE AND COMPOSITION– ADVANCED PLACEMENT**

5 Periods                                      1 Year    1.0 Credit    Grade 12

AP English Literature and Composition is a college level course. Students exercise critical thinking through the lively interchange of ideas and the investigation of various levels of meaning in fiction and nonfiction works of classic and contemporary world-famous authors. Composition skills are refined as literary techniques, and principles of rhetoric and syntax are analyzed and put to use. Students prepare to take the College Board’s Advanced Placement English Literature and Composition Examination. Colleges may grant credits for above-average scores on this examination.

**ENGLISH ELECTIVES**

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**198 KEYSTONE LITERATURE SEMINAR**

5 Periods                                      .5 Year    0.5 Credit    Grade 10, 11

*Students are assigned to this course based on reading achievement and teacher/counselor recommendation.*

In this course, students review the content and skills necessary to achieve proficiency on the Keystone Exam.

**140 \*DE BRITISH LITERATURE- DUAL ENROLLMENT: Prerequisite- 120 DE College English I and 130 DE College English II**

3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 12

Analyzes works of significant literary and intellectual movements from Anglo-Saxon times to neoclassicism to cultivate an appreciation of British literature and to develop thinking, reading, and writing skills.

**KEY FOR COURSE CODES:** A – Advanced Placement    AA – Allen Arts Academy    AD – Advanced    CT – Dieruff Information Technology Academy    DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**164 MEDIA PRINT I (Yearbook) Prerequisite: Teacher recommendation**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Media Print I students explore the varied aspects and functions of the contemporary periodical, concentrating on what it is and how it works. Comparisons of popular, mass-circulation, and specialized magazines are made to explain and to understand individual philosophies and functions. Students study feature writing, advertising techniques, layout, photography, and typography. Members of this class will be directly involved in yearbook production.

**165 MEDIA PRINT II (Yearbook) Prerequisite: Media Print I and teacher recommendation**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Media Print II builds on the skills developed in Media Print I. Students will study such aspects of print media as writing, advertising, layout, photography, and typography. The course also offers students the opportunity to specialize in one or more of these areas. Those who schedule this elective will be directly involved in the production of the school yearbook.

**166 MEDIA PRINT III (Yearbook) Prerequisite: Media Print I & II and teacher recommendation**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Media Print III offers intensive work in the actual publication of the yearbook. Desktop publishing, photography, public relations, and feature writing highlight course units of study and requirements. Students will facilitate business relationships with outside consultants as well as implement intra-office team management skills, planning and meeting publication deadlines.

**161 JOURNALISM I**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Journalism I is an introductory course that is directed to an inductive study of the contemporary newspaper. The principles of style, objectivity, format, and layout will be applied in practical situations. Students receive assignments to facilitate the production of the school newspaper.

**162 JOURNALISM II Prerequisite: Journalism I and English teacher recommendation**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Journalism II further develops the skills and insights gained in Journalism I. Emphasis is placed on the following specialized areas of journalism: editing; reporting; column writing; circulation; research; news photography; cartooning; investigative reporting; and conducting interviews. Students will increase their involvement in the production of the school newspaper.

**163 JOURNALISM III Prerequisite: Journalism I and II and English teacher recommendation**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Journalism III will be available, on an independent study basis, to interested individuals who are accepted for the production of a newspaper. The teacher-adviser will determine specifics for each student. It will be expected that Journalism III students will participate in the production of a newspaper in their area of specialization.

**Note: This course may be repeated for additional credit.**

**175 DE \*SPEECH- DUAL ENROLLMENT: Prerequisite- COMPASS Writing Test, minimum score of 66**

3.0 College Credit 1 Semester 1.0 Credit, ASD Grade 11, 12

A public speaking course designed to develop self-confidence through several types of speaking situations: formal, informal, and impromptu. Students learn how to analyze an audience and how to prepare an effective presentation through research and use of visual aids. In addition, students learn to develop listening skills and a greater command of the English language. Constructive evaluation and videotaping of student speeches lead to self-improvement. NOTE: It is recommended that ESL students complete ESL 252 or obtain permission from an ESL instructor before enrolling in this course.

**177 DE \*INTERPERSONAL COMMUNICATIONS- DUAL ENROLLMENT Prerequisite - NA**

3.0 College Credit 1 Semester 1.0 Credit, ASD Grade 11, 12

Designed to provide a fuller understanding of self and others through the study and practice of interpersonal communication skills. Topics will include verbal and nonverbal messages, perception, listening, intercultural communication, and conflict resolution skills.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**181A/181B CAREER AND WORK STRATEGIES 1A/1B**

5 Periods .5 Year 0.5 Credit Grade 9

This course is designed for the eligible student participating in an inclusion setting or receiving a modified curriculum. The supportive instruction is aligned with the 9<sup>th</sup> grade Academic Standards for Career Education and Work and will provide strategies to be successful past post-secondary education. Students will engage in various lessons that focus on analytical skills, career awareness, career acquisition, career retention, career advancement, entrepreneurship, post-secondary education/training and character development.

**182A/182B CAREER AND WORK STRATEGIES 2A/2B**

5 Periods .5 Year 0.5 Credit Grade 10

This course is designed for the eligible student participating in an inclusion setting or receiving a modified curriculum. The supportive instruction is aligned with the 10<sup>th</sup> grade Academic Standards for Career Education and Work and will provide strategies to be successful past post-secondary education. Students will engage in various lessons that focus on community mapping, career awareness, career acquisition, career retention, career advancement and character development.

**183A/183B CAREER AND WORK STRATEGIES 3A/3B**

5 Periods .5 Year 0.5 Credit Grade 11

This course is designed for the eligible student participating in an inclusion setting or receiving a modified curriculum. The supportive instruction is aligned with the 11<sup>th</sup> grade Academic Standards for Career Education and Work and will provide strategies to be successful past post-secondary education. Students will engage in various lessons that focus on analytical skills, career awareness, career acquisition, career retention, career advancement, entrepreneurship, post-secondary education/training and character development. Student will begin job shadowing and exploring careers within their community.

**184A/184B CAREER AND WORK STRATEGIES 4A/4B**

5 Periods .5 Year 0.5 Credit Grade 12

This course is designed for the eligible student participating in an inclusion setting or receiving a modified curriculum. The supportive instruction is aligned with the 12<sup>th</sup> grade Academic Standards for Career Education and Work and will provide strategies to be successful past post-secondary education. Students will engage in various lessons that focus on post-secondary education/training and character development. Students will identify agencies and community contacts that will facilitate their transition path. Also, students will complete their online portfolio with all the tools needed in today's job market or higher education.

**747 THEATRE I**

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

Theatre I introduces students to theatre as a vital, exciting art form. Students will have the opportunity to explore and participate in pantomime, improvisation, acting, scene design, stagecraft, lighting, costuming, and makeup. The history, development, and elements of theatre will be examined. Students may have the opportunity to attend theatrical productions.

**748 THEATRE II Prerequisite: Theatre I**

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

Theatre II students will continue to develop and polish skills learned in Theatre I. They will be introduced to dramatic characterization, emotional control, vocal techniques, and body movement as they relate to the actor. Script analysis, historical periods, and styles of acting will be emphasized. Performance in a prepared scene will be required. Students will have the opportunity to explore and participate in advanced forms of improvisation, as well as acting, lighting, stagecraft, scene design, costuming, and makeup.

**749 THEATRE III Prerequisite: Theatre I & II**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Theatre III will provide students with practical, hands-on experience in all phases of theatrical production. Students will be required to participate in some aspects of the school's dramatic activities: play/musical selection and analysis; stage management; scene, lighting and costume design; makeup; set construction and décor; publicity; or acting and directing. **Note: This course may be repeated for additional credit.**

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade



**381 SURVEY OF MATHEMATICS** *Prerequisite: Algebra I or Developmental Algebra I and Geometry*  
5 Periods 1 Year 1.0 Credit Grade 11, 12

Survey of Mathematics prepares students to meet the Algebra I Keystone Exam requirements by developing their skills in mathematical Reasoning, problem solving, and communication. Previous learning will be reinforced with an emphasis on the connections among basic topics. These include numbers and operations, measurement, geometry, algebraic concepts, and data analysis and probability. If students have not yet scored proficient on the Keystone Exams, students will be required to take the Algebra I Keystone Exam at the completion of this course.

**310AD \*ALGEBRA II - ADVANCED** *Prerequisite: Algebra I*  
5 Periods 1 Year 1.0 Credit Grade 9, 10, 11

Algebra II Advanced continues the study of algebra by presenting new concepts and extending the basic topics of the first course. Students include systems of equations and inequalities, quadratic, exponential, and logarithmic functions, complex numbers, conic sections, matrices, sequences, series, probability and statistics. The course provides a thorough preparation for trigonometry, college algebra, and other advanced mathematics courses. Students engage in solving a variety of challenging problems and are encouraged to inquire, hypothesize, investigate, and discover ideas for themselves.

**311 ALGEBRA II** *Prerequisite: Algebra I*  
5 Periods 1 Year 1.0 Credit Grade 10, 11, 12

Algebra II presents new concepts and extends the basic topics of the Algebra I course. Students include systems of equations and inequalities, quadratic, exponential and logarithmic functions, complex numbers, conic sections, matrices, sequences, series, probability and statistics. The course prepares students for trigonometry, college algebra and other advanced mathematics courses.

**312 FOUNDATIONS OF ALGEBRA II** *Prerequisite: Algebra I*  
5 periods 1 Year 1.0 Credit Grade: 10, 11, 12

*Students are assigned to this course based on standardized test scores and teacher/counselor recommendation.*

Foundations of Algebra II strengthens and extends students understanding of Algebra I to prepare them for retaking the Algebra I Keystone Exam. Additionally, students are introduced to Algebra II concepts to support their future success in Algebra II. The topics to be covered in this course include rational expressions, linear equations, systems of equations, inequalities, quadratic equations, probability and statistics, exponential functions, logarithmic functions, and complex numbers. Students are required to retake the Algebra I Keystone Exam as part of this course.

**330AD \*ALGEBRA III - ADVANCED** *Prerequisite: Geometry and Algebra II*  
5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Algebra III Advanced extends the concepts and skills developed in previous algebra courses with emphasis on the analytical aspects. Students explore mathematical connections in more advanced topics including systems of equations, matrices, higher degree equations, the binomial theorem, sequences, series, permutations and combinations, and conic sections. Their work includes research and special projects.

**331 ALGEBRA III** *Prerequisite: Geometry and Algebra II*  
5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Students in Algebra III will extend their understanding of the topics introduced in Algebra II and the connections between algebraic and geometric representations. They will solve problems involving systems of equations, matrices, higher degree equations, the binomial theorem, sequences, series, permutations and combinations and conic sections.

**341 TRIGONOMETRY** *Prerequisite: Geometry and Algebra II*  
5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

This course introduces the properties of the trigonometric functions that students apply to solve practical problems. Trigonometry is particularly important in the study of high school physics, technical courses and many trades.

**340AD \*TRIGONOMETRY – ADVANCED** *Prerequisite: Geometry and Algebra II*  
5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

In Trigonometry Advanced, students study the elementary properties of the trigonometric functions that are presented as circular functions, emphasizing their periodic nature. The student is given opportunities to explore the applications of trigonometry.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**351 ANALYTIC GEOMETRY** *Prerequisite: Algebra III and Trigonometry*

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Analytic Geometry applies algebraic and trigonometric concepts to the study of geometry with an emphasis on analysis and rigorous proof.

**350AD \*ANALYTIC GEOMETRY - ADVANCED** *Prerequisite: Algebra III and Trigonometry*

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Analytic Geometry Advanced applies algebraic and trigonometric concepts to the study of geometry emphasizing theory, analysis, rigorous proof, and applications.

**350 DE \*PRE-CALCULUS DUAL ENROLLMENT** *Prerequisite: COMPASS Algebra 71 and high school math through Trigonometry*

3.0 College Credit 1 Semester 1.0 Credit, ASD Grade 11, 12

Designed for students whose backgrounds are not sufficient to immediately begin the calculus sequence. Serves any student looking for a mature investigation of algebra and trigonometry. This one-semester course covers the topics included in MAT 160 and MAT 165 at a relatively rapid pace. Topics include: polynomials, systems of equations, sequences and series, trigonometric functions and graphs, inverse functions, exponential and logarithmic functions, identities and equations, parametric equations, and polar curves. A graphing calculator is required.

**360 DE \*CALCULUS & ANALYTICAL GEOMETRY- DUAL ENROLLMENT** *Prerequisite: COMPASS Algebra 71 and high school math through Trigonometry*

3.0 College Credit 1 Semester 1.0 Credit, ASD Grade 12

Primarily intended for students majoring in science, mathematics, or engineering. Topics include data analysis, limits, differentiation with applications (optimization and related rates), and integration. A graphing calculator is required.

**360AA \*CALCULUS (AB) - ADVANCED PLACEMENT** *Prerequisite: Analytic Geometry*

5 Periods 1 Year 1.0 Credit Grade 10, 11, 12

Advanced Placement Calculus (AB) provides the student the opportunity to study calculus with the theory and rigor necessary to prepare the student to take the College Board's Advanced Placement Calculus (AB) Examination.

**360AB \*CALCULUS (BC)– ADVANCED PLACEMENT** *Prerequisite: Analytic Geometry*

5 Periods 1 Year 1.0 Credit Grade 10, 11, 12

Advanced Placement Calculus (BC) offers the student a wider range of topics than Calculus (AB). With an emphasis on theory and application, this course prepares the student to take the College Board's Advanced Placement Calculus (AB or BC) Examination. Students are expected to do independent study of selected BC topics.

**390 DE \*PROBABILITY AND STATISTICS- DUAL ENROLLMENT** *Prerequisite: COMPASS Algebra 66 and two years of high school Algebra*

3.0 College Credit 1 Semester 1.0 Credit, ASD Grade 11, 12

This math course is for students in programs where measurements and predictions are made. Topics include the following: tabulation of data, measures of central tendency and dispersion, sampling, types of distributions, probability, hypothesis testing and elementary aspects of correlation. A graphing calculator is required.

**391 STATISTICS** *Prerequisite: Algebra II*

5 Periods 1 Year 1.0 Credit Grade 11, 12

In Statistics, students explore relationships among variables in real world situations. Students will use probability distributions, simulations, and models to make predictions and draw conclusions based on data. Students engage in group problem-solving and use technology, projects and experiments to develop and demonstrate their understanding of data collection, description, and analysis.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**309A \*STATISTICS – ADVANCED PLACEMENT Prerequisite: Algebra II**

5 Periods

1 Year

1.0 Credit

Grade 11, 12

The themes of this course include the topics addressed on the Advanced Placement Statistics examination: describing data, sampling and experimentation, using probability and statistics to make predictions, and statistical inference. Students will incorporate technology in activities and projects that include the design, implementation, and presentation of original research. There will be an emphasis on decision-making, validating/justifying statistical hypotheses, and demonstrating the critical connections between the analysis and conclusions of statistical design experiments. This course is designed to prepare students to take the College Board's Advanced Placement Statistics Examination.

**MATHEMATICS ELECTIVES**

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**398 KEYSTONE ALGEBRA I SEMINAR**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11

*Students are assigned to this course based on mathematics achievement and teacher/counselor recommendation.*

In this course, students review the content and skills necessary to achieve proficiency on the Algebra I Keystone Exam.

**371 COMPUTER PROGRAMMING I Prerequisite: Algebra I**

5 Periods

.5 Year

0.5 Credit

Grade 9, 10, 11, 12

Computer Programming I in Java (LED) or Visual Basic (WAHS) introduces students to the capabilities of computers and provides a fundamental knowledge of programming structures. By writing programs, students will use microcomputers as a problem-solving tool and learn techniques that are transferable to other programming languages.

**372 COMPUTER PROGRAMMING II Prerequisite: Computer Programming I**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11, 12

This course is rigorous; designed for students interested in writing programs using Java. They will expand their sequential and random access file management, and graphics and audio applications. This course will stress writing programs with applications to fields and a final project.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**SCIENCE**  
**CORE COURSES**  
(3 Credits are required for graduation)

**400 FUNCTIONAL SCIENCE**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9, 10, 11, 12

This course is offered for eligible students whose primary identified need is to learn functional skills. This course is aligned to the PA Alternate Standards. This course provides instruction in the general science areas of energy, matter, environment, motion, conservation, weather, and human body systems.

**464 PHYSICAL SCIENCE**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9

Physical Science is an introduction to concepts relating the principles of chemistry and physics. Through investigations students will learn about the basic building blocks of the universe. This course is designed to help students improve their own problem-solving skills, and to answer questions about the relationship between matter and energy.

**400AD \*BIOLOGY I - ADVANCED**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9

Advanced Biology is an enriched first-year biology course. The course introduces and builds upon the basic biological principles of unity, diversity, structure, function, growth, development, biological organization, classification, ecology and human interactions. Certain basic principles of biochemistry are incorporated in order to deal with the molecular and cellular concepts presented. Laboratory investigations play a major role in the course. They offer the students insights into problem solving in the biological sciences as well as practical applications of biological principles to their own lives. Students are required to take the Biology Keystone Exam at the completion of this course.

**401 BIOLOGY I**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 10

This course presents the basic biological concepts that contribute to the unity and diversity of all living things. Areas of study include, but are not limited to structure, function, growth, development, biological organization and classification. Laboratory investigations offer the students insights into problem solving in the biological sciences as well as practical applications of biological principles to their own lives. Students are required to take the Biology Keystone Exam at the completion of this course.

**466 ENVIRONMENTAL SCIENCE**    *Prerequisite: Biology*

5 Periods                      1 Year                                      1.0 Credit                                      Grade 11, 12

This course is designed to develop an understanding of the complex interactions between humans and the environment. Areas of study include, but are not limited to, economics and environmental policy, earth's environmental systems, ecology, earth's resources, and global sustainability. Laboratory investigations offer students the opportunity to learn how humans interact with the earth's resources and develop an appreciation for how today's decisions define our future environment.

**411 CHEMISTRY I**    *Prerequisite: Algebra I*

7 Periods                      1 Year                                      1.0 Credit                                      Grade 10, 11, 12

Chemistry I is designed to give students an understanding of the major concepts and principles in the field of chemistry. Concepts such as the classification of matter, systems of units and measurement, atomic structure, periodic table, bonding, nomenclature and stoichiometry, gas laws, kinetics and equilibrium, and solution chemistry are considered.

**410AD \*CHEMISTRY I - ADVANCED**    *Prerequisite: Algebra I*

7 Periods                      1 Year                                      1.0 Credit                                      Grade 10, 11, 12

Chemistry I Advanced is an enriched first-year chemistry course. Concepts such as the classification of matter, systems of units and measurement, atomic structure, periodic table, bonding, nomenclature and stoichiometry, gas laws, kinetics and equilibrium, and solution chemistry are considered.

**421 PHYSICS I**    *Prerequisite: Algebra I and Chemistry I*

7 Periods                      1 Year                                      1.0 Credit                                      Grade 11, 12

Physics I presents content covering classical mechanics, heat, light, electricity and magnetism, fluids, wave theory, sound, and selected topics in modern physics. Lectures, demonstrations, class discussions, laboratory experiments and problem solving are the methods used to develop a clear understanding of course content. Proficiency in algebra is essential.

**KEY FOR COURSE CODES:** A – Advanced Placement    AA – Allen Arts Academy    AD – Advanced    CT – Dieruff Information Technology Academy    DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**430A \*BIOLOGY - ADVANCED PLACEMENT** *Prerequisite: Biology I, Chemistry I*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 11, 12

Biology Advanced Placement is an enriched biology course conducted on the college freshman level. The course includes the study of the essential unity of all living things, the interdependence of organism and environment, functional morphology, evolution, biochemistry, and genetics. Laboratory work is utilized to amplify lectures and discussions, and also to help students develop a scientific attitude for problem solving. This course will help students prepare to take the Advanced Placement Examination in Biology. Students prepare to take the College Board's Advanced Placement Biology Examination.

**466A ENVIRONMENTAL SCIENCE - ADVANCED PLACEMENT** *Prerequisite: Biology and Physical Science or Chemistry*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 11, 12

The Advanced Placement Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students prepare to take the College Board's Environmental Science Advanced Placement Examination.

**440A \*CHEMISTRY - ADVANCED PLACEMENT** *Prerequisite: Chemistry I and Algebra II*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 11, 12

Advanced Placement Chemistry is a second-year Chemistry course conducted on the college freshman level. Fundamental chemical concepts are studied, including, but not limited to the structure and states of matter; the nature of reactions, including basic thermodynamics and kinetics; descriptive features of classes of elements and compounds; and associated chemical calculations. The course contributes to the development of the students' ability to think clearly and to express their ideas orally and in writing. Laboratory experiments of both qualitative and quantitative nature are an integral part of the course. Students prepare to take the Advanced Placement Examination in Chemistry. Students prepare to take the College Board's Advanced Placement Chemistry Examination.

**420A \*PHYSICS 1 – ADVANCED PLACEMENT** *Prerequisite: Algebra II and Chemistry I*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 11, 12

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. This course provides a foundation in physics for students planning to pursue studies in the sciences as well as other fields not related to science. Laboratory activities are an integral part of this course, and provide students the opportunity to complete a laboratory portfolio. Students prepare for the Advanced Placement Exam in Physics 1.

**451A \*PHYSICS 2 – ADVANCED PLACEMENT** *Prerequisite: Algebra II and AP Physics 1*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 12

AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. This course extends students' foundation in physics for those planning to pursue studies in the sciences and other fields not related to science. Laboratory activities are an integral part of this course, and provide students the opportunity to complete a laboratory portfolio. Students prepare for the Advanced Placement Exam in Physics 2.

**450A \*PHYSICS (C) – ADVANCED PLACEMENT** *Prerequisite: Chemistry I and Physics I*  
7 Periods                                      1 Year                                      1.0 Credit                                      Grade 12

Advanced Placement Physics C is a second-year physics course providing the first part of the college sequence that serves as the foundation in physics for students majoring in the physical sciences or engineering. Methods of calculus are used as a tool in formulating physical principles and in applying them to problem solving. This course focuses on topics related to mechanics and electricity and magnetism. Laboratory activities are an integral part of this course and will provide students with the opportunity to complete a laboratory portfolio. Students prepare to take the College Board's Advanced Placement Examination in Physics C.

**420 DE \*PHYSICS (ELEMENTS 110)- DUAL ENROLLMENT** *Prerequisite: COMPASS Algebra test, minimum score of 49*  
4.0 College Credit                              1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

Primarily for technical students requiring one semester of physics and for students to meet a general science requirement, this course provides the student with basic concepts of physics. Areas of study include mechanics, properties of matter, heat, waves, and electricity and magnetism. Technical applications are cited. Computers are frequently used in lab for data acquisition and analysis.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

## SCIENCE ELECTIVES

For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.

### **405 BIOLOGY KEYSTONE SEMINAR**

5 Periods .5 Year 0.5 Credit Grade 10, 11

*Students are assigned to this course based on biology achievement and teacher/counselor recommendation.*

In this course, students review the content and skills necessary to achieve proficiency on the Biology Keystone Exam.

### **470 DE \*ANATOMY & PHYSIOLOGY- DUAL ENROLLMENT Prerequisite: Biology Placement Test**

4.0 College Credit 1 Semester 1.0 Credit, ASD Grade 11, 12

Provides students, primarily in health-related programs, with an in-depth understanding of the anatomy and physiology of complex living organisms, including humans. Biological principles, as well as the structural and functional relationships among several organ systems, are discussed. (Considerable dissection is required.)

### **\*TAHLTH EMERGING HEALTH PROFESSIONS – DUAL ENROLLMENT**

15 Periods 1 Year 2.0 Credit Grade 12

This course based at the Lehigh Valley Hospital & Health Network and Penn State is a dual enrollment program with Penn State University and LCTI. This program is for students who wish to excel in a health career and possess an aptitude for science. This program requires an application evaluation and committee review. Classes receive high school Advanced credit and may be used toward college credit. Tuition costs must be covered by the student.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**SOCIAL STUDIES  
CORE COURSES**

(3.5 Credits are required for graduation)

**200AD \*UNITED STATES HISTORY I - ADVANCED**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9

United States History I Advanced will combine both primary resources and literary documents in exploring and uncovering the nation's earliest history. Students will engage in class discussions, debates, and simulations to illustrate events from our past. Through document-based questions and in-depth analysis, students will prepare themselves for both advanced placement courses and Advanced level classes in a variety of subjects. Students will develop their individual as well as cooperative learning skills through a variety of techniques.

**201 UNITED STATES HISTORY I**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9

United States History I spans the age of exploration through Reconstruction. Students will be introduced to the diverse groups of people who formed a common bond while blending their individual cultures to shape the United States. The incorporation of works of literature into this course promotes the development of reading and writing strategies and will help students to better understand United States history.

**202 FUNCTIONAL SOCIAL STUDIES**

5 Periods                      .5 Year                                      0.5 Credit                                      Grade 9, 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course allows the students the opportunity to become familiar with the places within this community and how to access the services they offer. This course also helps the students to develop appropriate community social interaction skills.

**210A \*WORLD HISTORY – ADVANCED PLACEMENT**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 10

World History Advanced Placement highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. Focused primarily on the past thousand years of the global experience, the course builds on an understanding of geography and cultural, institutional, and technological precedents. Students prepare to take the College Board's World History Advanced Placement Examination.

**211 WORLD HISTORY**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 10

World History traces the development of civilization from ancient to modern times. Consideration will be given to cultures in the global setting with emphasis on Western, Eastern, African, Middle Eastern and Latin cultures in current and historical perspective. A variety of historic materials will be used to enable students to approach the present world with an understanding of its institutions and ideas. The incorporation of works of literature into this course promotes the development of reading and writing strategies and will help students to better understand world history.

**221 UNITED STATES HISTORY II**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 11

United States History II is designed to give students an understanding of the 20<sup>th</sup> century evolution of our nation. The period since 1865 has been a time of great political, economic, social, and cultural change – a transition from an agrarian America to that of the unique, urban society of today. The incorporation of works of literature into this course promotes the development of reading and writing strategies and will help students to better understand United States history.

**250A \*UNITED STATES HISTORY - ADVANCED PLACEMENT**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 11

United States History Advanced Placement is designed to prepare students for the College Board's American History Advanced Placement Examination. The enhancement of college skills, including the ability to use critical analysis in thinking and writing, is emphasized. Students will utilize a variety of materials, including primary sources, to analyze and interpret the interrelationship among social, cultural, political, and economic developments in American History.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**220 DE \*US HISTORY SINCE RECONSTRUCTION - DUAL ENROLLMENT** *Prerequisite: NA*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

The economic, political, and social development of the United States since the Reconstruction Era to the present is the core of the course. Topics considered include developments in agriculture, industry, culture, organized labor, and urbanization. Analysis is made of the changing role of government, reform efforts, America's rise to a world power, and role in the world since 1945.

**231 UNITED STATES GOVERNMENT**  
5 Periods                                      .5 Year    0.5 Credit    Grade 12

United States Government focuses on the study of the United States Constitution. Major emphasis will be placed on the powers and duties of the executive, judicial, and legislative branches of the government at the federal, state and local levels. Students will have the opportunity to participate in Student Government Day. In order to understand and appreciate the American form of government, students will have the opportunity to explore and to evaluate the governments of other countries.

**230A \*UNITED STATES GOVERNMENT & POLITICS – ADVANCED PLACEMENT**  
5 Periods                                      .5 Year    0.5 Credit    Grade 12

United States Government & Politics Advanced Placement is designed for students preparing to take the College Board's Advanced Placement Examination. The course involves the study of general concepts and the analysis of specific case studies. Topics to be explored are the Constitution, political beliefs and behavior, political parties and interest groups, institution and policy processes, and civil rights and civil liberties. Students may have the opportunity to participate in the We the People competition.

**240A \*MACROECONOMICS - ADVANCED PLACEMENT**  
5 Periods                                      .5 Year    0.5 Credit    Grade 12

Macroeconomics Advanced Placement students will analyze current economic issues including: budget deficits; inflation; unemployment and trade imbalance as well as the role of monetary and fiscal policies in pursuing the goal of growth and stability. Emphasis will be placed on the recognition of the value of cooperation among interdependent nations regardless of ideology on the level of economic development. Students prepare to take the College Board's Macroeconomics Advanced Placement Examination.

#### **SOCIAL STUDIES ELECTIVES**

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**235 DE \*STATE AND LOCAL GOVERNMENT - DUAL ENROLLMENT** *Prerequisite: NA*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

A study of the organization and functions of state and local governments (as exemplified in Pennsylvania) and their place in our federal system. Topics studied include state, county, township, borough and city government; metropolitan cooperative/consolidation efforts; special purpose districts; and the contributions that active citizens can make in their state and communities

**240A \*MACROECONOMICS - ADVANCED PLACEMENT**  
5 Periods                                      .5 Year    0.5 Credit    Grade 12

Macroeconomics Advanced Placement students will analyze current economic issues including: budget deficits; inflation; unemployment and trade imbalance as well as the role of monetary and fiscal policies in pursuing the goal of growth and stability. Emphasis will be placed on the recognition of the value of cooperation among interdependent nations regardless of ideology on the level of economic development. Students prepare to take the College Board's Macroeconomics Advanced Placement Examination.

**241 ECONOMICS**  
5 Periods                                      .5 Year    0.5 Credit    Grade 12

Economics traces the development of the American economic system and its functions. Government efforts to resolve the recurring problems of inflation and unemployment will be examined. Opportunities will also be provided to investigate other relevant issues, including the legal and economic implication of private property, money and banking, consumer protection and financial security. Students will be introduced to the competing economic system of Capitalism, Socialism, and Communism; and be made aware of the impact of global economic cooperation on the quality of their lives.

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**282 DE \*INTRODUCTION TO PSYCHOLOGY- DUAL ENROLLMENT** *Prerequisite: NA*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

This introductory course will provide students with an overview of the current body of knowledge and methods of the science of psychology. With an emphasis on empirical examination, the course focuses on the historical and contemporary foundations of psychology, cognition, emotions, learning, memory, consciousness, human development, biological bases of behavior, personality, psychological disorders, therapy and social behavior. Emphasis will be placed on the application of psychology to diverse human endeavors and on the students' ability to recognize and cope with uncertainty and ambiguity in human behavior.

**282 PSYCHOLOGY**  
5 Periods                                      .5 Year    0.5 Credit    Grade 10, 11, 12

Psychology provides an introduction to the behavioral sciences. Psychology deals with elementary principles of the discipline and with personality development. Consideration will be given to abnormal and social psychology. Studies will be presented to illustrate specific instances of wholesome and unwholesome behavior.

**283 DE \*INTRODUCTION TO SOCIOLOGY- DUAL ENROLLMENT** *Prerequisite: COMPASS Test, minimum score 79*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 11, 12

Sociology studies how we define our social world, create and learn rules for interacting with one another, establish and maintain institutions such as the family, school, and church, divide and distribute work and wealth among ourselves, struggle for power and prestige, and adjust to new ideas and technologies. This course introduces students to the conceptual tools needed to explore these issues and to develop a critical understanding of the social world.

**283 SOCIOLOGY**  
5 Periods                                      .5 Year    0.5 Credit    Grade 10, 11, 12

Sociology provides students with background information about modern societies and social institutions. The course emphasizes analysis of problems that individuals and institutions encounter as they attempt to adjust to the ever-changing conditions that exist in the world today. Topics for examination include social organization, cultural and social change, and social problems.

**284 DE \*HUMAN GROWTH AND DEVELOPMENT- DUAL ENROLLMENT** *Prerequisite: 282 DE Introduction to Psychology*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 12

Overview of development throughout the entire life cycle. Developmental themes that emerge in and across different stages of life, including physical cognitive, social and emotional factors are surveyed. The role of heredity, culture, personal experience and the environment are discussed.

**286 DE \*MODERN SOCIAL PROBLEMS- DUAL ENROLLMENT** *Prerequisite: NA*  
3.0 College Credit                      1 Semester                                      1.0 Credit, ASD                                      Grade 12

This course offers a sociological approach to the study of social problems. Student will examine how a problem comes to public attention, how it is defined, how data are used or misused in the presentation of a problem, and how political ideology affects what solutions are offered for a problem. Course materials will give special attention to the role of the media in highlighting certain problems and in shaping an audience's perspective on those problems. Students will investigate the social-structural conditions that produce particular problems and explore the ways in which a variety of problems are connected to one another. They will look at the political and economic interests that are tied to those social structures and consider how those interests affect policy. Throughout the course, students will evaluate "solutions" put forward by various advocates and agencies and identify ways in which individuals can become involved in shaping policy debates and/or taking political action. The particular problems addressed will vary, but may include: poverty, heterosexism, violence, substance use/abuse, access to health care, educational disparities, environmental pollution, war and genocide, and/or the exploitation of labor.

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## ART

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**711 DE \*INTRODUCTION TO ART- DUAL ENROLLMENT** *Prerequisite: NA*  
3.0 College Credit                      1 Semester                      1.0 Credit, ASD                      Grade 12

ART 101 surveys painting, sculpture, architecture and other related art forms of Western culture with the consideration of the aesthetic, historical, and technical significance of major artistic achievements.

**711 ART I**  
5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

Art I is a foundation program in studio art emphasizing the basic skills of drawing, design, and color. Work experiences include basics in two-dimensional artwork.

**712 ART II** *Prerequisite: Art I*  
5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

Art II is a continuation of the foundation program in studio art that expands the student's skills in two-dimensional areas. A broad variety of techniques and materials will be explored.

**713 ART III** *Prerequisite: Art II*  
5 Periods                      .5 Year                      0.5 Credit                      Grade 10, 11, 12

Art III includes problem-solving units in design, printmaking with an emphasis on drawing and painting. Three-dimensional units may be included such as clay, jewelry, and construction. Students are required to keep a sketchbook.

**714 ART IV** *Prerequisite: Art III*  
5 Periods                      .5 Year                      0.5 Credit                      Grade 10, 11, 12

Art IV is an expansion of Art II with the addition of aesthetics, art appreciation and philosophy. Students are required to keep a sketchbook.

**720A \*STUDIO ART - ADVANCED PLACEMENT** *Prerequisite: Art I and Art II*  
5 Periods                      1 Year                      1.0 Credit                      Grade 12

Studio Art Advanced Placement is a course for the highly motivated student interested in the serious study of Art. Every student will be expected to develop a quality portfolio and meet the standards of evaluation as described in the CEEB Advanced Placement Program. Students are required to keep an art journal reflecting on their ongoing work and statement of intent with an oral and visual presentation. Students prepare to take the College Board's Studio Art Advanced Placement Examination. This course is run in conjunction with Visual Arts II at Allen and Art III at Dieruff.

**726 COMPUTER GRAPHICS**  
5 Periods                      .5 Year                      0.5 Credit                      Grade 10

Computer Graphics develops an awareness of the various creative desktop designing and publishing software standard to the world of advertising and publishing. Students will be introduced to the most commonly used programs: Adobe PhotoShop and PhotoShop by Design. Flash will be available to those students who complete the two previous programs. Various other assignments will be given in which students will need to apply their learned knowledge of the program skills. An intermediate knowledge of basic computer processes is required.

**7261 THE ART EXPERIENCE – TWO DIMENSIONAL**  
5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

Two Dimensional design is an introductory level course in art that focuses on the basics of design, drawing, and painting. A variety of two dimensional techniques will be explored such as drawing, painting, collage, and printmaking. This course is intended to give an introduction to art. *This course is offered during Early Bird period (pre-homeroom and homeroom) at Allen.*

**727 THE ART EXPERIENCE – THREE DIMENSIONAL**  
5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

This course is an entry level to three-dimensional design focusing on clay, glass, metals, and construction. These experiences will develop basic skills in the creation of three dimensional forms and pottery. With emphasis on studio production, this course is designed to develop higher level thinking, art related technology skills, art criticism, art history, and aesthetics. *At Allen this course is offered during Early Bird (pre-homeroom and homeroom).*

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**731 \*ART HISTORY – ADVANCED PLACEMENT**

5 Periods

1 Year

1.0 Credit

Grade 10, 11, 12

Advanced Placement Art History is a course for the highly motivated student interested in the history of art from the Paleolithic period through to art of the 20<sup>th</sup> century. Theories of art history, aesthetics, historical contexts of art movements, as well as styles of art and stylistic influences on artists are studied in depth. Students are required to complete readings and write papers out of class as assigned. Students prepare to take the College Board's Art History Advanced Placement Examination.

**BUSINESS**

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**601 DE \*INTRODUCTION TO COMPUTER APPLICATIONS- DUAL ENROLLMENT Prerequisite: NA**

3.0 College Credit

1 Semester

1.0 Credit, ASD

Grade 11, 12

Intended for students with little or no previous computer experience. The topics presented in this course include a survey of computer hardware, application and system software, data communications and networks, the societal impacts of computerization, and ethics in the context of digital information. Students will have hands-on experience with popular spreadsheet, word processing, database, presentation, and web design software packages in a networked environment. Students will also consider the criteria used to evaluate computer equipment for personal as well as organizational purchase.

**601 COMPUTER APPLICATIONS FOR CAREER PLANNING**

5 Periods

.5 Year

0.5 Credit

Grade 9

This course is designed to introduce students to practical uses of computer software using Microsoft Office. Students will become familiar with word processing, spreadsheets, databases, presentations and the Internet for information acquisition. Students will use computer applications to explore potential careers.

**604 COMPUTER APPLICATIONS**

5 Periods

.5 Year

0.5 Credit

Grade 9

This course is offered for eligible students whose primary identified need is to learn functional skills. This course is designed to introduce students to practical application uses of computer software using Microsoft Office. Students will become familiar with basic word processing, databases, and the Internet for information acquisition. Students will use computer applications to explore potential careers.

**602 CREATING COMPUTER PRESENTATIONS Prerequisite: Computer Application for Career Planning**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11, 12

This course focuses on advanced use of PowerPoint. Students will learn to prepare computer presentations for future use in school-related and work-related projects, including the required Graduation Project. Included is the use of color schemes, backgrounds, clip art, organization charts, tables, sound, and formatted text.

**603 INTERNET/MULTIMEDIA APPLICATIONS Prerequisite: Computer Application for Career Planning**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11, 12

This course guides students in their exploration of the Internet and multimedia technology. The course will provide students with skills necessary for searching and interfacing media including sight and sound.

**605 WEB PAGE DESIGN Prerequisite: Computer Application for Career Planning**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11, 12

This course focuses on creating web pages that communicate the appropriate message and attract an audience using a variety of methods and software. It includes critical analysis of web page organization, design and functionality.

**651 WORK THEORY**

1-2 Periods

1 Year

0.5 to 1.0 Credits

Grade 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course introduces the students to the fundamental attitudes, behaviors, and habits needed to obtain and maintain employment in their career choice. Students are presented with simulated work situations to problem solve successful outcomes. Students continue to develop and update their personal resumes, complete job applications, and participate in mock interviews.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**652 WORK EXPERIENCE**

15 Periods

1 Year

3.0 Credits

Grade 11, 12

This course is for eligible eleventh and twelfth grade students who may already be gainfully employed within the community. The instructional day is tailored to the working hours of the student. Monitoring of their job performance/attendance is made on a weekly basis.

**653 WORK-BASED LEARNING**

2-15 periods

1 Year

1.0 to 3.0 Credits

Grade 10, 11, 12

This course is designed for eligible students whose primary need is to develop and expand their transition skills, especially in the area of employment. Students participate in authentic work-based learning opportunities provided within both the school and outside community settings with job coaching support. This course allows students to develop and apply skills generic to all career majors with a focus on: reliability, social interactions, constructive feedback, team work, accuracy, time management, safety, problem solving, and stamina and endurance.

**DANCE**

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

**737 DANCE I (Allen)**

5 Periods

.5 Year

0.5 Credit

Grade 9, 10, 11, 12

Dance I is a course for students with any degree of experience in dance. The principles, elements and protocol of dance will be introduced. Students will learn proper body alignment. Conditioning, flexibility, techniques and vocabulary of basic movements in ballet, modern, jazz, and musical theatre will be experienced and performed. Students will gain knowledge through written assignments and active participation.

**738 DANCE II (Allen)**

5 Periods

.5 Year

0.5 Credit

Grade 9, 10, 11, 12

Dance II will expand on the concepts and techniques learned in Dance I. Students will learn combinations in ballet, jazz, and modern dance through floor and center exercises. Students will further develop their ability to use the body as an expressive tool and to assess their own strengths and needs in dance training. Students will gain knowledge through written assignments and active participation.

Dance credit can be applied for Physical Education in grades 10, 11, 12 or Arts credit in 9, 10, 11, and 12.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

## ENGLISH TO SPEAKERS OF OTHER LANGUAGES PROGRAM (ESOL)

The ESOL Program provides instruction designed to serve the needs of English Language Learners. Students are placed in appropriate English as a Second Language (ESL) courses based on English Proficiency Levels as measured by the PDE designated English level proficiency test.

### **100 ESL NEWCOMER ENGLISH**

15 Periods                      1 Year                                      3.0 Credits                                      Grades 9, 10, 11, 12

This is a fundamental English course for newcomers only. Essential content level and survival vocabulary are stressed. All four domains (listening, speaking, reading and writing) are taught with an emphasis on establishing literacy skills for success in high school. Placement in sections is based on proficiency levels as measured by the PDE designated English language proficiency test and is made by the Office of ESOL and World Languages. Students who take this course satisfy one of the four English units required for graduation.

### **101 ESL ENGLISH 9**

10 Periods                      1 Year                                      2.0 Credits                                      Grades 9

This course provides instruction in English as a second language across the 4 domains of listening, speaking, reading and writing. Students work at the appropriate language proficiency level to develop academic and social proficiency in vocabulary, language forms and functions, literacy and writing. Reading skills and strategies with both authentic literature and content texts are stressed. Placement in sections is based on proficiency levels as measured by the PDE designated English language proficiency test and is made by the Office of ESOL and World Languages. Students who take this course satisfy one of the four English units for graduation.

### **111 ESL ENGLISH 10**

10 Periods                      1 Year                                      2.0 Credits                                      Grades 10

This course provides instruction in English as a second language across the 4 domains of listening, speaking, reading and writing. Students work at the appropriate language proficiency level to develop academic and social proficiency in vocabulary, language forms and functions, literacy and writing. Reading skills and strategies with both authentic literature and content texts are stressed. Placement in sections is based on proficiency levels as measured by the PDE designated English language proficiency test and is made by the Office of ESOL and World Languages. Students who take this course satisfy one of the four English units for graduation.

### **121 ESL ENGLISH 11**

10 Periods                      1 Year                                      2.0 Credits                                      Grades 11

This course provides instruction in English as a second language across the 4 domains of listening, speaking, reading and writing. Students work at the appropriate language proficiency level to develop academic and social proficiency in vocabulary, language forms and functions, literacy and writing. Reading skills and strategies with both authentic literature and content texts are stressed. Placement in sections is based on proficiency levels as measured by the PDE designated English language proficiency test and is made by the Office of ESOL and World Languages. Students who take this course satisfy one of the four English units for graduation.

### **131 ESL ENGLISH 12**

10 Periods                      1 Year                                      2.0 Credits                                      Grades 12

This course provides instruction in English as a second language across the 4 domains of listening, speaking, reading and writing. Students work at the appropriate language proficiency level to develop academic and social proficiency in vocabulary, language forms and functions, literacy and writing. Reading skills and strategies with both authentic literature and content texts are stressed. Placement in sections is based on proficiency levels as measured by the PDE designated English language proficiency test and is made by the Office of ESOL and World Languages. Students who take this course satisfy one of the four English units for graduation.

**KEY FOR COURSE CODES:** A – Advanced Placement    AA – Allen Arts Academy    AD – Advanced    CT – Dieruff Information Technology Academy    DE – Dual Enrollment; (\*) before a course indicates weighting of grade

## FAMILY AND CONSUMER SCIENCE

**For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.**

### **801 LIFE CARE PLANNING**

5 Periods .5 Year 0.5 Credit Grades 9, 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course teaches and reinforces personal safety, self-advocacy, communication skills, personal relationships, problem solving, self-determination, and establishing life goals. The students learn how to identify and articulate post-school goals, personal strengths and needs, and ability to ask for assistance in order to facilitate increased independence.

### **811 ADULT LIVING**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Adult Living presents a program in human development geared to help students cope with the problems of everyday living and prepare for a fulfilling adult life. Topics include changing lifestyles, marriage and family life, money management and consumer decisions and responsibilities. They are presented with an emphasis on self-understanding, decision-making and problem solving.

### **832 INDEPENDENT LIVING SKILLS**

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course teaches the students how to maintain and care for their personal home environment. The students learn how to maintain their living arrangements by developing independent living skills related to budgeting, cooking, cleaning, safety, minor household repairs, and home maintenance.

### **812 PARENTING**

5 Periods .5 Year 0.5 Credit Grade 10, 11, 12

Parenting educates students about the importance and complexity of positive parenting. Students examine the responsibilities of parenthood, the costs of child rearing, pregnancy and birth, newborn care, health and safety issues and child development. Social issues such as missing and exploited children, child abuse, and discipline are studied also.

### **821 PRE-VOCATIONAL SKILLS**

5 Periods 1 Year 1.0 Credit Grade 9, 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course provides hands-on exploration and training in basic vocational skills in real-work careers. In addition, the students will focus on exploring and developing their individual strengths, work-related problem solving skills, appropriate work behaviors and career interests.

### **831 COMMUNITY INVOLVEMENT**

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

This course is designed for eligible students whose primary identified need is to learn functional skills. This course aids the students in accessing activities within their local community. The students learn how to make choices, select, and plan appropriate recreational activities. This course will provide the student an opportunity to explore an array of life-long recreational, leisure, and volunteer activities.

### **841 SOCIAL BEHAVIORS**

5 Periods 1 Year 1.0 Credit Grade 9, 10, 11, 12

This course is available to eligible students. This course allows the students to continue to develop appropriate and acceptable interpersonal and social behaviors across all social settings. This course teaches skills that will enable the student to maintain employability and appropriate interactions as a citizen of the community. It includes individual rights and responsibilities afforded to productive community members.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

## HEALTH AND PHYSICAL EDUCATION

For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy, or pathway requirements.

### 908/928 ADAPTED PHYSICAL EDUCATION

2 Periods                      1 Year                      0.2 Credit                      Grade 9, 10, 11, 12

Physical Education is required for graduation and includes instruction in lifetime sports, physical fitness and conditioning. Adapted Physical Education fulfills the required Physical Education credit for eligible students, who require a curriculum that offers significant adapted physical education instruction.

### 931 HEALTH EDUCATION

5 periods                      .5 Year                      0.5 Credit                      Grade 9

Health Education provides an understanding of the human body systems and substance abuse with an emphasis on human sexuality. The curriculum explores positive daily life skills that include wellness, nutrition, first aid and community health.

## PHYSICAL EDUCATION

### Boys/Girls

905/925 5 Periods                      .5 Year                      0.2 Credit                      Grade 9, 10, 11, 12

904/924 4 Periods                      .5 Year                      0.2 Credit                      Grade 9, 10, 11, 12

903/923 3 Periods                      1 Year                      0.2 Credit                      Grade 10, 11, 12

Physical Education is required for graduation and includes instruction in lifetime sports, physical fitness and conditioning, rhythmic movement, aquatics and adaptive physical education. Students will be expected to wear, for health and safety reasons, the Allentown School District approved physical education uniform.

### 913 DE \*PHYSICAL EDUCATION- DUAL ENROLLMENT *Prerequisite: NA*

Physical education courses are oriented toward lifetime and are elective in nature. They may not be repeated for credit.

## MUSIC

For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy, or pathway requirements.

### 750A \*MUSIC THEORY – ADVANCED PLACEMENT

5 Periods                      1 Year                      1.0 Credit                      Grade 11, 12

Music Theory Advanced Placement is a college level course designed for the highly motivated student interested in the serious study of music. Components include the study of musical terminology, score analysis and notational, compositional, and aural skills. Students prepare to take the Advanced Placement Examination in Music Theory.

### 756 INSTRUMENTAL ACTIVITIES

5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

Fall – For players of wind and percussion instruments the course begins in August with preparation for the Marching Band season and continues through September and October during Early Bird (pre-homeroom and homeroom) with early AM field practice. String players not in Marching Band will meet as a string ensemble during Early Bird period. Approximately November 1<sup>st</sup>, all instrumentalists will be assigned by instrument and ability level to various ensembles. Membership is by audition. All band front students must enroll in Instrumental Music Activities. Spring – Instrumentalists will be assigned to ensembles by instrument and ability level for public concert presentations. Membership is by audition.

### 757 CHORAL ACTIVITIES

5 Periods                      .5 Year                      0.5 Credit                      Grade 9, 10, 11, 12

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

Choral Activities is a study, through rehearsal and public performances, of all aspects of the choral art: classical, "pop", jazz, and show choir repertoire. This course, which offers a fine opportunity for anyone who wishes to learn and sing using all types of music and to perform on stage, is open to all students with or without experience and with no audition. Many competitive, travel and social opportunities are offered. Meeting time at *Allen* is during Early Bird (pre-homeroom and homeroom). Membership is by audition at *Allen*.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**761 BAND**

3 Periods

1 Year

0.6 Credit

Grade 9, 10, 11, 12

Band is a study and the performance of works representative of the major forms (suite, overture, rhapsody, march, etc.) from the baroque through the contemporary periods of composition. There are many school and public performances including concerts, parades, half time shows at sporting events, competitions, and festivals. Preparation for these performances includes participation in summer and after school rehearsals. Marching Band season begins in August and concludes in October. Concert Band begins following the football season and continues throughout the remainder of the school year.

**764 INSTRUMENTAL INSTRUCTION**

5 Periods

1 Year

1.0 Credit

Grade 10, 11, 12

Instrumental Instruction offers an individual or group development of comprehensive musicianship through careful attention to tone quality, accurate pitch, good blend and balance, sight-reading, and musical expression. Students may enroll in this course to receive individual help. (Continuing string and wind instrument players are especially encouraged to enroll.) The instrumental instructor determines the composition of the ensemble based on student auditions.

**765 VOICE I**

5 Periods

.5 Year

0.5 Credit

Grade 10, 11, 12

Voice I is a course for beginners with little or no previous experience in singing. Any student may elect this course. No audition is required. Students must be willing and able to sing alone and with others. Students will study correct posture, breath control, enunciation and phrasing, tone production and control, and interpretation. Students will develop an awareness of songs and vocal exercises in the standard repertoire.

**767 PIANO I**

5 Periods

.5 Year

0.5 Credit

Grade 9, 10, 11, 12

Piano I is a course designed for students who have no previous piano experience. This course is the study of the basic skills involved in reading music and playing the keyboard, including varied types of music, from pop to classical. Each student will have his/her own practice instrument.

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**NAVAL JUNIOR RESERVE OFFICER TRAINING CORPS (NJROTC)**

William Allen High School

An elective program, Navy Junior ROTC offers students opportunities to grow as citizens. Students learn through classroom academic classes and hands-on field work. Each week includes three academic classes, a drill period, and one leadership laboratory. Students are provided uniforms at no cost. The courses and concurrent extracurricular activities support development of community service, physical fitness, self-discipline, and patriotism. Courses are offered during academic periods including Early Bird. Courses are sequential, but upper class may start as Naval Science I students. Participation in NJROTC incurs no military service obligation, but offers many advantages to those who decide to enlist or enter an officer commissioning program after graduation. New enlistees gain accelerated advancement and increased pay. If qualified, NJROTC graduates can be awarded appointment to the United States Naval Academy and other service academies. NJROTC graduates also earn an advantage in competition for Navy ROTC scholarships to attend colleges and universities.

**961 NAVAL SCIENCE I**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9, 10, 11, 12

This course presents an introduction to naval organization. Instruction includes basic first aid, naval history, and seamanship. Students learn basic drill and proper wear of the uniform.

**962 NAVAL SCIENCE II**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 10, 11, 12

This course introduces meteorology, naval weapons, leadership, survival skills, and citizenship. Moving beyond NS I material, students will expand knowledge in areas of seamanship, shipboard organization, and naval history.

**963 NAVAL SCIENCE III**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 11, 12

This course continues to build knowledge in leadership, naval history and naval organization. Students explore electronics, astronomy, sea power, and practical leadership.

**964 NAVAL SCIENCE IV**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 12

This course offers continued study of citizenship, naval history, naval organization and electronics. It also offers advanced work in leadership, examining ethical behavior and organizational psychology. As seniors lead underclassman in activities, they learn from practical experience.

**965 NAVAL SCIENCE I (EARLY BIRD)**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 9, 10, 11, 12

**966 NAVAL SCIENCE II (EARLY BIRD)**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 10, 11, 12

**967 NAVAL SCIENCE III (EARLY BIRD)**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 11, 12

**968 NAVAL SCIENCE IV (EARLY BIRD)**

5 Periods                      1 Year                                      1.0 Credit                                      Grade 12

**A student may enroll in an ROTC program at William Allen or Louis E. Dieruff High School regardless of where he or she lives in the district. The student should work with the guidance department of his/her home middle or high school to arrange placement. A written parental request for transfer approval must be submitted to the Director of Community & Student Services, by the first week of August.**

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

## TECHNOLOGY EDUCATION

For electives that have limited enrollment, priority will be given to upper classmen who need the course to meet graduation, academy or pathway requirements.

### 831 ELECTRICITY/ELECTRONICS I

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

Electricity/Electronics I is designed to introduce students to the practical concepts of electricity and electronics. Primary areas of study include the use of electrical/electronic equipment in industry and the home. Each student will have the opportunity to test, repair, and construct electrical apparatus. A segment of the course will be devoted to the construction of a motorized vehicle and the study and experimentation of electrical motors.

### 835 TECHNOLOGY & ELECTRONICS (Dieruff) Prerequisite: Algebra I

5 Periods .5 year 0.5 Credit Grade 11, 12

Technology & Electronics teaches students preparing for a career in technology, fundamentals of analog and digital electronics as well as basic circuitry. Students build electrical projects and do many hands on activities. Computer aided instruction will be used extensively for the study of fundamental analog electronics. **Students interested in the Information Technology Academy are encouraged to take this course.**

### 861 VISUAL COMMUNICATION (Dieruff)

5 Periods .5 Year 0.5 Credit Grade 9, 10, 11, 12

Visual Communication emphasizes computer graphic design, introductory mechanical drawing concepts and silk screening procedures.

### 881 COMPUTER ARCHITECTURE (Dieruff) Prerequisite: Computer Application for Career Planning

5 Periods 1 Year 1.0 Credit Grade 10

Computer Architecture involves the study of computer hardware, operating systems, and introductory networking. Students build and upgrade computers and learn operating systems. **Students interested in the Information Technology Academy are encouraged to take this course.**

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## WORLD LANGUAGES

### INTRODUCTION

Since the objectives of learning all world languages are identical, the following descriptions of the various language levels apply equally to the languages taught. Special problems of each language are dealt with through modifications in pace and content.

#### LEVEL I (ALL LANGUAGES)

Emphasis is placed on developing the four basic language skills; listening, speaking, reading and writing. Proper language habits are fostered through basic dialogues and through pattern practices of various kinds. Reading and writing involves material previously learned on the listening and speaking level. An understanding is developed of the heritage of the language, government, history, and the art of countries where the target language is spoken.

#### LEVEL II (ALL LANGUAGES)

*Prerequisite: Completion of level one*

Work continues on the four basic skills. Grammatical structure is more complex. Class conversation arises from the reading lessons expanding into real-life situations. Use of oral language is increased. Cultures of various countries are explored.

#### LEVEL III (ALL LANGUAGES)

*Prerequisite: Completion of level two*

Stress on reading and writing is now equal to that of listening and speaking. Reading delves more deeply into cultural materials. Writing exercises include autobiographical descriptions and picture descriptions. Language production, in speech or in writing, reflects a greater measure of student independence but emphasis is placed on using only those patterns that are thoroughly controlled.

#### LEVEL IV (ALL LANGUAGES)

*Prerequisite: Completion of level three*

The program is similar to the third level but with a higher degree of difficulty. Listening and speaking receive the attention due, but reading and writing take the foreground. Readings are more ambitious and may include such materials as newspapers and magazines. Writing becomes more spontaneous and free, and paragraphs of reasonable sophistication and competence are expected.

#### LEVEL V ADVANCED PLACEMENT (ALL LANGUAGES)

*Prerequisite: Completion of level four and teacher recommendation in German and Spanish.*

Reading selections for the Advanced Placement courses are those suggested as preparation for the Advanced Placement Examinations. Students are introduced to the techniques of literary analysis and criticism as they apply both to poetry and to prose. A thorough review of the grammar and syntax of the language is also provided.

#### 511 GERMAN I

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

#### 512 GERMAN II

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

#### 513 GERMAN III

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

#### 514 \*GERMAN IV - ADVANCED

5 Periods                      1 Year                      1.0 Credit                      Grade 10, 11, 12

#### 515A \*GERMAN LANGUAGE - ADVANCED PLACEMENT

5 Periods                      1 Year                      1.0 Credit                      Grade 12

#### SPANISH FOR SPANISH SPEAKERS (LEVELS I, II, III)

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

At each of the first three levels of Spanish, a separate course is offered to students who speak and understand Spanish as a native. The courses concentrate less on listening and speaking and focus more on reading and writing. These courses are intended for students who already have an oral proficiency but need instruction in structure and grammar. All students who are native Spanish speakers must enroll in one of these three courses.

#### 521 SPANISH I

5 Periods                      1 Year                      1.0 Credit                      Grade 9, 10, 11, 12

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**521N SPANISH I FOR SPANISH SPEAKERS**

|           |        |            |                     |
|-----------|--------|------------|---------------------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|-----------|--------|------------|---------------------|

**522 SPANISH II**

|          |        |            |                     |
|----------|--------|------------|---------------------|
| 5 Period | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|----------|--------|------------|---------------------|

**522N SPANISH II FOR SPANISH SPEAKERS**

|           |        |            |                     |
|-----------|--------|------------|---------------------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|-----------|--------|------------|---------------------|

**523 SPANISH III**

|           |        |            |                     |
|-----------|--------|------------|---------------------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|-----------|--------|------------|---------------------|

**523N SPANISH III FOR SPANISH SPEAKERS**

|           |        |            |                     |
|-----------|--------|------------|---------------------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|-----------|--------|------------|---------------------|

**524 \*SPANISH IV - ADVANCED**

|           |        |            |                     |
|-----------|--------|------------|---------------------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 9, 10, 11, 12 |
|-----------|--------|------------|---------------------|

**525A \*SPANISH LANGUAGE - ADVANCED PLACEMENT**

|           |        |            |          |
|-----------|--------|------------|----------|
| 5 Periods | 1 Year | 1.0 Credit | Grade 12 |
|-----------|--------|------------|----------|

**514 DE \*GERMAN- DUAL ENROLLMENT *Prerequisite: requires two years of high school language***

|                    |            |                 |              |
|--------------------|------------|-----------------|--------------|
| 3.0 College Credit | 1 Semester | 1.0 Credit, ASD | Grade 11, 12 |
|--------------------|------------|-----------------|--------------|

A continuation of College German I, the course will emphasize speaking, reading, writing, and comprehension of the language. Focus will be on grammar, usage, vocabulary, comprehension, and pronunciation.

**524 DE \*SPANISH- DUAL ENROLLMENT *Prerequisite: requires two years of high school language***

|                    |            |                 |              |
|--------------------|------------|-----------------|--------------|
| 3.0 College Credit | 1 Semester | 1.0 Credit, ASD | Grade 11, 12 |
|--------------------|------------|-----------------|--------------|

The course is the first semester of the second year of two years of Spanish studies and therefore, a continuation of study of grammar and vocabulary of the Spanish language. The course also includes the study of Spanish-speaking cultures and emphasis on speaking, listening, reading, and writing skills.

**534 DE \*FRENCH- DUAL ENROLLMENT *Prerequisite: NA***

|                    |            |                 |              |
|--------------------|------------|-----------------|--------------|
| 3.0 College Credit | 1 Semester | 1.0 Credit, ASD | Grade 11, 12 |
|--------------------|------------|-----------------|--------------|

This course is offered to beginners and to some non-beginners who have had perhaps one year of French in high school, but who feel that their preparation is inadequate for an intermediate course at the college level. The basic communication skills are systematically developed: listening and speaking skills are emphasized in the classroom and expanded with participation in a language tape program. Reading and writing skills are progressively developed through various creative exercises, activities, and assignments. Cultural readings and materials are adapted to provide the student with the opportunity to practice communication skills, while at the same time discovering aspects of both daily life and traditional culture of Francophones all over the world and within the United States.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade



The Allentown School District has established the ASD Virtual Academy, the Allentown Academy of the Arts at William Allen, and the Academy of Information Technology at Louis E. Dieruff High School. The academies at William Allen and Dieruff high schools provide students the opportunity to select electives in a concentrated field of study. The virtual academy provides students with the opportunity to enroll in elective, core, and credit recovery courses.

The student should work for placement with the guidance department of the middle or high school in which he or she is enrolled. Students transferring from their home high school for an academy must stay one semester before having the option to transfer back to their home school. For the Arts and Informational Academies, transportation will be provided between the high schools. Students are required to go to their home school for pick-up.

The following academies are offered:

**The ASD Virtual Academy**

The Allentown School District Virtual Academy (grades 9-12)

**William Allen High School Academies**

The Allentown Academy of the Arts (grades 11, 12)

**Louis E. Dieruff High School Academies**

The Academy of Information Technology (grades 11, 12)

***THE ALLENTOWN SCHOOL DISTRICT VIRTUAL ACADEMY***

**ACADEMY PURPOSE**

The Allentown School District (ASD) is a leader in K-12 for preparing our students for the 21st Century. ASD Virtual Academy offers high quality, Internet-delivered high school courses that equip students to thrive in the complex life and work environment of the 21st Century.

**PROGRAM DESCRIPTION**

A virtual school can be defined as a location where students can complete their coursework online, while the student and teacher work together from a distance. In a virtual environment, students work at their own pace (within broad deadlines) and complete a combination of assignments; tests; quizzes; projects; and assessments that permit a teacher to follow the educational progress of the student. The ASD Virtual Academy offers the hallmarks of truly effective traditional education programs – quality teachers, quality curriculum, and frequent student-teacher interaction. All courses are taught by ASD teachers and meet national, state and ASD School District curriculum standards.

In addition to rigorous course content that meets state and district performance standards, ASD Virtual Academy's online learning environment fosters creativity, critical thinking, communication, and collaboration, as well as mastery of information, media, and technology skills--all of which are essential for preparing students for the future.

The ASD Virtual Academy High School offers students the ability to complete all their high school courses online with the support from ASD teachers and guidance counselors. ASD students can enroll in the ASD Virtual Academy High School full-time or take certain courses at their home school during their school day. For high school students to enroll in credit recovery online course options, they must work with the guidance office at their home school to determine if this program is appropriate for their learning style. Current ASD high school students can enroll in blended on line courses, which are available during first or last period of the school day. To apply, students must work with their guidance office to schedule courses that are academically appropriate. The students and parents/guardians must attend the orientation before the students can take the course(s).

**VIRTUAL ACADEMY  
COURSES**

CORE COURSES

SCIENCE

| COURSE ID | COURSE TITLE          | CREDITS | DURATION |
|-----------|-----------------------|---------|----------|
| VA411     | CHEMISTRY             | 1.0     | 1 Year   |
| VA440A    | CHEMISTRY- *AP        | 1.0     | 1 Year   |
| VA401     | BIOLOGY 1             | 1.0     | 1 Year   |
| VA430A    | BIOLOGY 1- *AP        | 1.0     | 1 Year   |
| VA464     | PHYSICAL SCIENCE      | 1.0     | 1 Year   |
| VA421     | PHYSICS               | 1.0     | 1 Year   |
| VA466     | ENVIRONMENTAL SCIENCE | 1.0     | 1 Year   |

ENGLISH

|        |                                       |     |        |
|--------|---------------------------------------|-----|--------|
| VA101  | ENGLISH 1                             | 1.0 | 1 Year |
| VA111  | ENGLISH 2                             | 1.0 | 1 Year |
| VA121  | ENGLISH 3                             | 1.0 | 1 Year |
| VA131  | ENGLISH 4                             | 1.0 | 1 Year |
| VA132  | READING SKILLS & STRATEGIES           | 1.0 | 1 Year |
| VA120A | ENGLISH LANGUAGE & COMPOSITION- *AP   | 1.0 | 1 Year |
| VA130A | ENGLISH LITERATURE & COMPOSITION- *AP | 1.0 | 1 Year |

SOCIAL STUDIES

|        |                                   |     |         |
|--------|-----------------------------------|-----|---------|
| VA201  | US HISTORY 1                      | 1.0 | 1 Year  |
| VA210A | WORLD HISTORY- *AP                | 1.0 | 1 Year  |
| VA211  | WORLD HISTORY                     | 1.0 | 1 Year  |
| VA221  | U.S. HISTORY II                   | 1.0 | 1 Year  |
| VA250A | U.S. HISTORY- *AP                 | 1.0 | 1 Year  |
| VA230A | U.S. GOVERNMENT and POLITICS- *AP | 0.5 | .5 Year |
| VA231  | U.S. GOVERNMENT and POLITICS      | 0.5 | .5 Year |
| VA240A | MACROECONOMICS- *AP               | 0.5 | .5 Year |
| VA241A | MICROECONOMICS- *AP               | 0.5 | .5 Year |
| VA242  | U.S. AND GLOBAL ECONOMICS         | 0.5 | .5 Year |

MATHEMATICS

|         |                                 |     |         |
|---------|---------------------------------|-----|---------|
| VA306   | ALGEBRA 1A                      | 1.0 | 1 Year  |
| VA316   | ALGEBRA 1B                      | 1.0 | 1 Year  |
| VA301   | ALGEBRA 1                       | 1.0 | 1 Year  |
| VA311   | ALGEBRA 2                       | 1.0 | 1 Year  |
| VA321   | GEOMETRY                        | 1.0 | 1 Year  |
| VA350   | PRECALCULUS                     | 1.0 | 1 Year  |
| VA360AA | CALCULUS AB= *AP                | 1.0 | 1 Year  |
| VA390A  | STATISTICS= *AP                 | 1.0 | 1 Year  |
| VA245   | MATHEMATICS OF PERSONAL FINANCE | 1.0 | 1 Year  |
| VA314   | MATH FOUNDATIONS I              | 0.5 | .5 Year |
| VA315   | MATH FOUNDATIONS II             | 0.5 | .5 Year |

ELECTIVE COURSES

| COURSE ID | COURSE TITLE                     | CREDITS | DURATION |
|-----------|----------------------------------|---------|----------|
| VA282     | PSYCHOLOGY                       | 0.5     | .5 Year  |
| VA282A    | PSYCHOLOGY- *AP                  | 0.5     | .5 Year  |
| VA283     | SOCIOLOGY                        | 0.5     | .5 Year  |
| VA164     | MEDIA LITERACY                   | 0.5     | .5 Year  |
| VA171     | CREATIVE WRITING                 | 0.5     | .5 Year  |
| VA212     | WORLD HISTORY TO THE RENAISSANCE | 1.0     | 1 Year   |
| VA251     | MULTICULTURAL STUDIES            | 0.5     | .5 Year  |
| VA905     | PHYSICAL EDUCATION               | 0.2     | .5 Year  |
| VA931     | HEALTH                           | 0.5     | .5 Year  |
| VA711     | ART APPRECIATION                 | 0.5     | .5 Year  |
| VA501     | FRENCH I                         | 1.0     | 1 Year   |
| VA502     | FRENCH II                        | 1.0     | 1 Year   |
| VA511     | GERMAN I                         | 1.0     | 1 Year   |
| VA512     | GERMAN II                        | 1.0     | 1 Year   |
| VA531     | LATIN I                          | 1.0     | 1 Year   |

ELECTIVE COURSES (Continued)

| <u>COURSE ID</u> | <u>COURSE TITLE</u>                | <u>CREDITS</u> | <u>DURATION</u> |
|------------------|------------------------------------|----------------|-----------------|
| VA551            | MANDARIN CHINESE I                 | 1.0            | 1 Year          |
| VA521            | SPANISH I                          | 1.0            | 1 Year          |
| VA522            | SPANISH II                         | 1.0            | 1 Year          |
| VA523            | SPANISH III                        | 1.0            | 1 Year          |
| VA525A           | SPANISH LANGUAGE, *AP              | 1.0            | 1 Year          |
| VA772            | MUSIC APPRECIATION                 | 1.0            | 1 Year          |
| VA601            | INFORMATION TECHNOLOGY APPLICATION | 0.5            | .5 Year         |

\* Advanced Placement and AP are registered trademarks of the College Board



**734AA DANCE STUDIO I**

10 Periods

1 Year

2.0 Credits

Grade 11, 12

Dance Studio I is an intermediate technique course which will include vocabulary, movement concepts, positions and combinations in ballet, modern, and jazz dance. Dance history and composition will also be studied. Performance is required. Audition and teacher recommendations are required.

**735AA DANCE STUDIO II** *Prerequisite: Dance Studio I or Dance Studio Concepts*

10 Periods

1 Year

2.0 Credits

Grade 12

Dance Studio II is for advanced students and continues to expand and develop the concepts and techniques learned in Dance Studio I. There will be extensive work on composition and the creation of an exit project. Performance is required. An audition and teacher recommendations are required.

**MUSIC****753AA MUSICAL ARTS CONCEPTS**

5 Periods

1 Year

1.0 Credit

Grade 11, 12

Musical Arts Concepts students will experience the elements of music including melody, harmony, form, and color from a theatrical and practical perspective. Students will also gain music literacy skills as they learn to play the piano. In addition, the class will study the different types of music from around the world. Students will have the opportunity to gain first-hand musical experience through in class performances. An additional semester arts elective is recommended.

**754AA INSTRUMENTAL AND VOCAL-I**

10 Periods

1 Year

2.0 Credits

Grade 11, 12

Instrumental and Vocal-I students will further develop their understanding of music theory, literature/history, aural studies, keyboard skills and performance techniques. An audition and teacher recommendation is required.

**755AA INSTRUMENTAL AND VOCAL-II**

5 Periods

1 Year

1.0 Credit

Grade 12

An audition and teacher recommendation is required. This course is run in conjunction with Music Theory - Advanced Placement.

*For Allentown Academy of the Arts music students, this course will include:*

**MUSIC THEORY**

A thorough study of clefs, modes, scales, triads and inversions, figures, bass symbols, and cadences will be taught. Students will learn eighteenth century part-writing techniques, rules of chord progression, diatonic modulation, non-harmonic tones, and seventh chords. Rhythms in all simple and compound meters and musical expression terms (Italian, German, and French) will be studied and mastered.

**MUSIC LITERATURE AND HISTORY**

Students will complete further analysis of form of all style periods, study of comparative performance practices and styles. A survey of the history of jazz, American folk music, rock and musical comedy (operetta and Broadway) is also part of this activity.

**AURAL STUDIES**

Students will develop techniques in collegiate level sight singing (solfeggio) to include modulation to closely related keys, minor mode singing, intervals and triads. In addition, musical dictation will also be introduced, as the student will notate simple melodies, rhythms, intervals, chord qualities and chord progressions.

**PERFORMANCE**

Although AAA music students are encouraged to study privately, activities are included in solo performances, ensemble experience and coaching.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**750AA \*MUSIC THEORY - ADVANCED PLACEMENT** *Prerequisite: Instrumental and Vocal I*  
5 Periods                                      1 Year                                      1.0 Credit                                      Grade 12

Music Theory AP is designed for the highly motivated student interested in the serious study of music. Components include the study of musical terminology, score analysis and notational, composition, and aural skills. Students prepare to take the Advanced Placement Examination in Music Theory. This course runs in conjunction with Instrumental and Vocal-II.

*For Allentown Academy of the Arts music students, this level of courses will include:*

**MUSIC THEORY**

Students will participate in a thorough study of advanced chromatic harmonies and modulations, composition in various forms (Theme and Variation, Fugue, and Sonata-allegro), basic concepts in standard orchestration techniques and a survey of 20<sup>th</sup> century composition techniques and trends.

**MUSIC LITERATURE AND HISTORY**

Students will complete further analysis of form of all style periods, study of comparative performance practices and styles. A survey of the history of jazz, American folk music, rock and musical comedy (operetta and Broadway) is also part of this activity.

**AURAL STUDIES**

Students will work toward further mastery of techniques in sight singing with advanced chromatic and modulatory material with an emphasis on harmonic dictation. Aural recognition of modes, meters, performance media, forms and styles in relation to historical periods will be stressed.

**PERFORMANCE**

In addition to their personal private instrumental or vocal studio work, included will be solo performance and recital seminars, master classes, ensemble experience and coaching.

**THEATRE**

The Theatre program is designed to provide students with a broad background in all aspects of the theatre including theatre movements and styles, history, script analysis, dramaturgy, design directing, stage management and acting. Students who complete the program will have an appreciation and understanding of how all elements of the theatre combine to form an artistic whole. Participants in the program may choose to focus in acting, directing, criticism/history/dramaturgy, or design/technology.

The acting studio emphasizes the union of feeling, thought, and action for the actor and seeks to integrate psychological, intellectual and physical processes into the technique of acting. Action and intention are underscored as the actor learns to work toward an objective.

**743AA ACTING STUDIO CONCEPTS** *Prerequisite: Theatre I or Acting Studio Integrated*  
5 Periods                                      1 Year                                      1.0 Credit                                      Grade 11, 12

Students will explore theatre through partner scene work and solo monologue work. Different concepts will be explored such as method acting, sense memory, and emotional recall, along with improvisation and relation techniques. A unit on musical theatre will be investigated. Students will be asked to write their own scene and direct it.

**744AA ACTING STUDIO I**  
10 Periods                                      1 Year                                      2.0 Credits                                      Grade 11, 12

Acting Studio I is for the serious acting student. Students will gain hands on experience by being involved in the inter-workings of the theatre, from scene shop and costumes to the technical aspect of lights and sound, acting techniques and the marketing of productions. Dramatic literature and theatre history will be studied and analyzed. Involvement in the fall play and the spring Main Stage Musical at Allen is required. An audition and teacher recommendation is required. (Auditions can be a monologue, a scene with a partner, or a vocal audition with a Broadway show tune.)

**745AA ACTING STUDIO II** *Prerequisite: Acting Studio I or Acting Studio Concepts*  
10 Periods                                      1 Year                                      2.0 Credits                                      Grade 12

Acting Studio II is for the advanced acting student. This course will build on the skills and techniques developed in Acting Studio I with the addition of a group project of writing a short One Act play and performing it. They will be responsible for sets, lights, costumes, directing and performing the piece. Involvement in the fall play and the spring Main Stage Musical at Allen is required. An audition and teacher recommendation is required. (Auditions can be a monologue, a scene with a partner, or a vocal audition with a Broadway show tune.)

**KEY FOR COURSE CODES:** A – Advanced Placement    AA – Allen Arts Academy    AD – Advanced    CT – Dieruff Information Technology Academy    DE – Dual Enrollment; (\*) before a course indicates weighting of grade

## VISUAL ARTS

**691AA ACADEMY INTERNSHIP** 1.0 Credit Grade 11, 12

Students will have the opportunity to work a full time paid/unpaid summer job doing technical work at a local business during the summer between grades eleven and twelve. To receive credit, 180 hours must be accumulated and internship guidelines met.

**720AA \*STUDIO ART – ADVANCED PLACEMENT** *Prerequisite: Visual Arts I*  
5 Periods 1 Year 1.0 Credit Grade 12

Studio Art AP is a quality oriented studio course. Included is concentrated theme and media development. An individualized professional portfolio will be finalized, meeting the standards of evaluation and described in the College Entrance Examination Board Advanced Placement Program. This course prepares the student to take the Advanced Placement Examination in Studio Art. A portfolio review and teacher recommendation is required. This course is run in conjunction with Visual Arts II.

**723AA VISUAL ARTS CONCEPTS** *Prerequisite: Art I or Visual Arts Integrated*  
5 Periods 1 Year 1.0 Credit Grade 11, 12

Visual Arts Concepts extends experiences in drawing, composition, color, and design to provide experiences with techniques and idea development involving various drawing and painting mediums as well as relief printing, photography, computer graphics, ceramic design, fibers, wood, metal, and glass. A student sketchbook is required and an additional semester arts elective is recommended.

**724AA VISUAL ARTS I**  
10 Periods 1 Year 2.0 Credits Grade 11, 12

Visual Arts I is for those students interested in an intense preparation for future study of the visual arts. Studio experiences involving: drawing, painting, printmaking, photography, sculpture, metals, glass, fibers, communication design, and computer graphics. A working knowledge of techniques, principles of design, personal course concepts, and media culminate in a portfolio review at year's end. This course prepares the student for the presentation and continued development of a professional portfolio. A portfolio review and teacher recommendation is required.

**725AA VISUAL ARTS II**  
5 Periods 1 Year 1.0 Credit Grade 12

Visual Arts II is for advanced students who wish to continue to expand and develop the concepts and techniques learned in Visual Arts I. This course is run in conjunction with Studio Art – Advanced Placement.

## FOCUSED ARTS ACTIVITIES

**736AA THE DANCE EXPERIENCE**  
5 Periods .5 Year 0.5 Credit Grade 11, 12  
5 Periods 1 Year 1.0 Credit Grade 11, 12

The Dance Experience is designed for any Arts Academy student interested in dance. The work will focus on improving physical fitness, movement awareness, body control, and will introduce students to a variety of theatrical dance forms. A mixed curriculum of modern, jazz, folk, tap, and ballet will be taught. Movement problems will be explored through improvisation. Dance may be applied for Physical Education credit.

**746AA THE THEATRE EXPERIENCE**  
5 Periods .5 Year 0.5 Credit Grade 11, 12  
5 Periods 1 Year 1.0 Credit Grade 11, 12

The Theatre Experience includes the study of basic acting, theatre design, technology and stage management. Students will be introduced to the exciting possibilities that exist in the theatre, including: performing, scenic lighting and costume design; computer lighting control; set and prop construction; and stage management. All will be explored and put into practice by participation in student projects and in our Fall and Spring productions. Major historical periods and styles will be analyzed and discussed in relationship to production design and acting styles.

**KEY FOR COURSE CODES:** A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade

**756 INSTRUMENTAL ACTIVITIES**

|           |         |            |              |
|-----------|---------|------------|--------------|
| 5 Periods | .5 Year | 0.5 Credit | Grade 11, 12 |
| 5 Periods | 1 Year  | 1.0 Credit | Grade 11, 12 |

Fall – For players of wind and percussion instruments the course begins in August with preparation for the Marching Band season and continues through September and October during Early Bird (pre-homeroom and homeroom) with early AM field practice. All band front students must enroll in Instrumental Music Activities. Spring – Instrumentalists will be assigned to ensembles by instrument and ability level for public concert presentations.

**757 CHORAL ACTIVITIES**

|           |         |            |              |
|-----------|---------|------------|--------------|
| 5 Periods | .5 Year | 0.5 Credit | Grade 11, 12 |
| 5 Periods | 1 Year  | 1.0 Credit | Grade 11, 12 |

Choral Activities is a study through rehearsal and performance of all styles in the vocal-choral repertoire. The large group provides excellent opportunity for both the beginning and the experienced singer who wishes to further develop vocal technique and perform on stage in public performances. Meeting time is during EB period (pre-homeroom and homeroom). Membership is by audition.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**ACADEMY OF INFORMATION TECHNOLOGY AT LOUIS E. DIERUFF HIGH SCHOOL**

**ACADEMY PURPOSE**

The purpose of the Academy of Information Technology is to provide instruction and experiences, which will lead to technology-based careers in the 21<sup>st</sup> century. Louis E. Dieruff High School has partnered with Microsoft Corporation to create the Microsoft IT Academy at Dieruff High School.

**PROGRAM DESCRIPTION:**

Students can follow one or parts of five threads of career pathways in the academy: computer operating systems and networking; computer applications; computer graphics; computer programming; and electronics. Core courses in social studies, English, and math will have technology-based instruction and all academy classes will have an interdisciplinary approach.

**ACADEMY OF INFORMATION TECHNOLOGY RECOMMENDED CURRICULUM**

**COURSE REQUIREMENTS**

| <u>COURSE</u>                                    | <u>CREDIT</u> |
|--|---------------|
| Computer Architecture (recommended for grade 10) | 1.0           |
| Web Page Design/Desktop Publishing               | 0.5           |
| Computer Graphics                                | 0.5           |
| Computer Programming I                           | 0.5           |
| Databases  | 0.5           |

**For Microsoft IT Academy Certification, 3.0 courses from the above and 1.0 credit for the courses below.**

| <u>COURSE</u>                                 | <u>CREDIT</u> |
|---|---------------|
| Computer Networking                           | 1.0           |
| Advanced Web Page Design & Multimedia Imaging | 0.5           |
| Computer Programming II                       | 0.5           |
| Internet Applications                         | 0.5           |

Students must earn a 2.0 grade point average, have satisfactory attendance and school citizenship, and adhere to dress code requirements in order to receive Certification for this Microsoft IT Academy program.

Students with a 3.0 grade point average and who have successfully completed an industry internship, in addition to the above requirements, will receive a Certification of Excellence and Achievement in this Microsoft IT Academy program. They will also receive an Acknowledgement of Skills Certificate for high achievement in any of the areas of computer technology, networking, programming, web page design, computer graphics and electronics. Fifty hours of volunteer service over four years are also required for this highest level of certification.

Volunteer service can include out-of-school activities for any non-profit organization or individuals. It does not have to be limited to doing computer related work. Time spent helping in Dieruff computer labs or classrooms during study halls, before school, after school, or in the summer count toward this total. If a student helps any teachers with computer problems, software installations, networking, or brochures, image editing, web page development, or any related tasks that are not done during regular class periods, this will count toward this total.

|  |   |
|--|---|
| <b>Grade 11</b><br>English III<br>Mathematics (on level)<br>Science (on level)<br>Physical Education<br>Computer Programming I<br>Computer Graphics<br>Elective(s)<br>Academy Internship | <b>Grade 12**</b><br>English IV<br>United States Government<br>Mathematics (on level)<br>Physical Education<br>Databases<br>Elective(s) |
|--|---|

| <b>Academy Electives</b>   |   |
|--|---|
| Computer Networking<br>Web Page Design/Desktop Publishing<br>Computer Programming II | Advanced Web Page Design & Multimedia Imaging<br>Academy Internship |

**\*\*50 hours of academy public service over a four-year period is required for Academy Certification.**

## COURSE DESCRIPTIONS

### **371 COMPUTER PROGRAMMING I** *Prerequisite: Algebra I*

5 Periods .5 Year 0.5 Credit Grade 11, 12

In Computer Programming I, Java introduces students to the capabilities of computers and provides a fundamental knowledge of programming structures. By writing programs, students will use microcomputers as a problem-solving tool and learn techniques that are transferable to other programming languages.

### **372 COMPUTER PROGRAMMING II** *Prerequisite: Computer Programming I*

5 Periods .5 Year 0.5 Credit Grade 11, 12

The course is designed to extend students' knowledge of Java, explore, and compare it to the languages of Scheme and Visual Basic. Students will have writing object-oriented programs with a project-based approach.

### **605 WEB PAGE DESIGN** *Prerequisite: Computer Application for Career Planning*

5 Periods .5 Year 0.5 Credit Grade 11, 12

This course focuses on creating web pages that communicate the appropriate message and attract an audience using a variety of methods and software. It includes critical analysis of web page organization, design and functionality.

### **606CT ADVANCED WEB PAGE DESIGN & MULTIMEDIA IMAGING** *Prerequisite: Web Page Design, Computer Graphics*

5 Periods .5 Year 0.5 Credit Grade 11, 12

Advanced Web Page Design & Multimedia Imaging is intended for students who have a strong interest in web page design, desktop publishing, multimedia imaging and as a career. Students will explore advanced HTML, XML, and Java Script along with the use of Macromedia Flash to create animations along with 2 dimensional and 3 dimensional imaging.

### **691CT ACADEMY INTERNSHIP**

1.0 Credit Grade 11, 12

Students will have the opportunity to work a full time paid/unpaid summer job doing technical work at a local business during the summer between grades eleven and twelve. To receive credit, 180 hours must be accumulated and meet internship guidelines.

### **726 COMPUTER GRAPHICS**

5 Periods .5 Year 0.5 Credit Grade 11, 12

Computer Graphics develops an awareness of the various creative desktop designing and publishing software standard to the world of advertising and publishing. Students will be introduced to the most commonly used programs: Adobe PhotoShop and PhotoShop by Design. Flash will be available to those students who complete the two previous programs. Various other assignments will be given in which students will need to apply their learned knowledge of the program skills. An intermediate knowledge of basic computer processes is required.

### **881CT COMPUTER ARCHITECTURE** *Prerequisite: Computer Application for Career Planning*

5 Periods 1 Year 1.0 Credit Grade 11, 12

Computer Architecture involves the study of computer hardware, operating systems, and introductory networking. Students build and upgrade computers and learn operating systems. Requirements for completing this course will include the study and successful completion of the Microsoft Digital Literacy certification. This course will also prepare students for CompTIA's A+ exams; Essentials (220-701) and Practical Application (220-702).

### **882CT COMPUTER NETWORKING** *Prerequisite: Computer Architecture and/or teacher approval*

5 Periods 1 Year 1.0 Credit Grade 11, 12

Computer Networking is the study of computer networks. Students learn networking terminology and configuration of both local area and wide area networks. This course will prepare students for the Microsoft MTA certification in Network Fundamentals (98-336) and Windows Server Administration Fundamentals (98-365).

### **884CT DATABASES**

5 Periods .5 Year 0.5 Credit Grade 11, 12

Database students are introduced to the basic concepts of relational database engines and the tools to use them. Database concepts of tables, rows, indexes, constraints, triggers, SQL syntax, and storage are among the concepts presented. The importance and interdependency of data relationships is also addressed.

**KEY FOR COURSE CODES: A – Advanced Placement AA – Allen Arts Academy AD – Advanced CT – Dieruff Information Technology Academy DE – Dual Enrollment; (\*) before a course indicates weighting of grade**

**BUILDING 21**

**MISSION & APPROACH:**

To empower networks of learners to connect with their passions, discover their purpose, and build agency to impact the world.

Building 21 is an educational non-profit based in Philadelphia, PA. Building 21 partners with communities, families, students, teachers, educational leaders and school districts to design, open and operate new high schools. Our learning model allows students to learn at their own pace, to engage with content and curriculum that they find interesting and relevant, and to apply and further develop their skills in real-world environments.

**PATHWAY CATEGORY**  
**ELECTIVES**  
**GRADES 9 – 12**

| <u>PATHWAY &amp; COURSE ID</u>        | <u>COURSE TITLE</u>                     | <u>AREA</u> | <u>CREDITS</u> | <u>DURATION</u> |
|---------------------------------------|---|-------------|----------------|-----------------|
| <b>ARTS</b>                           |   |             |                |                 |
| 718                                   | Photography                             | ART         | .25            | .25 Year        |
| 771                                   | Exploring Music                         | ART         | .25            | .25 Year        |
| 701                                   | Creative Art - Drawing and Painting     | ART         | .25            | .25 Year        |
| 746                                   | Drama/Theater (Theater Arts I)          | ART         | .25            | .25 Year        |
| 751                                   | Graphic Design                          | ART         |                |                 |
| <b>DIGITAL MEDIA</b>                  |   |             |                |                 |
| 726                                   | Digital Media Technology                | ART         | .25            | .25 Year        |
| 723                                   | Audio/Visual Production                 | ART         |                |                 |
| <b>BUSINESS</b>                       |   |             |                |                 |
| 244                                   | Banking and Finance                     | BUS         | .25            | .25 Year        |
| 606                                   | Entrepreneur                            | BUS         | .25            | .25 Year        |
| <b>HUMANITIES</b>                     |   |             |                |                 |
| 813                                   | Teaching Profession                     | FCS         | .25            | .25 Year        |
| 814                                   | Humanities Work Place Exp.              | FCS         | .25            | .25 Year        |
| 815                                   | Humanities Ind. Study                   | FCS         | .25            | .25 Year        |
| 819                                   | Exploration of Public Service Careers   | FCS         | .25            | .25 Year        |
| 820                                   | Personal Development                    | FCS         | .25            | .25 Year        |
| <b>INFORMATION TECHNOLOGY</b>         |   |             |                |                 |
| 371                                   | Computer Programming I                  | MATH        | .25            | .25 Year        |
| 605                                   | Webpage Design                          | BUS         | .25            | .25 Year        |
| 608                                   | Information Support and Services        | BUS         | .25            | .25 Year        |
| <b>LANGUAGE ARTS</b>                  |   |             |                |                 |
| 171                                   | Creative Writing                        | ENG         | .25            | .25 Year        |
| 193                                   | Literature (Other)                      | ENG         | .25            | .25 Year        |
| 194                                   | Literature of a Theme                   | ENG         | .25            | .25 Year        |
| 175                                   | Public Speaking                         | ENG         | .25            | .25 Year        |
| 179                                   | Speech/Debate                           | ENG         | .25            | .25 Year        |
| 169                                   | Journalism/Newspaper/Yearbook           | ENG         | .25            | .25 Year        |
| <b>LAW</b>                            |   |             |                |                 |
| 298                                   | Law Studies                             | SOC         | .25            | .25 Year        |
| <b>MEDICAL CAREERS AND TECHNOLOGY</b> |   |             |                |                 |
| 932                                   | Explorations of Health Care Occupations | HEALTH/PE   | .25            | .25 Year        |
| <b>PHYS ED/HEALTH</b>                 |   |             |                |                 |
| 904                                   | Co-ed Physical Education                | HEALTH/PE   | .25            | .25 Year        |
| 909                                   | Off-Campus Sports                       | HEALTH/PE   | .25            | .25 Year        |
| 913                                   | Lifetime Fitness Education              | HEALTH/PE   | .25            | .25 Year        |
| 911                                   | Health and Fitness                      | HEALTH/PE   | .25            | .25 Year        |
| 912                                   | Safety and Fitness                      | HEALTH/PE   | .25            | .25 Year        |
| <b>SOCIAL JUSTICE</b>                 |   |             |                |                 |
| 291                                   | Civil Justice                           | SOC         | .25            | .25 Year        |
| 838                                   | Community Involvement                   | FCS         | .25            | .25 Year        |

|        |  |      |     |          |
|--------|--|------|-----|----------|
| STEM   |  |      |     |          |
| 422    | Physics (Other - Nanotechnology)             | SCI  | .25 | .25 Year |
| 856    | Engineering Design and Development           | SCI  | .25 | .25 Year |
| 832    | Electricity/Electronics General              | TECH | .25 | .25 Year |
| TRADES |  |      |     |          |
| 833    | Electricity/Electronics Workplace Experience | TECH | .25 | .25 Year |
| 854    | Manufacturing – Other                        | TECH | .25 | .25 Year |
| 804    | Exploration of Hospitality                   | TECH | .25 | .25 Year |
| 855    | Career Exploration                           | TECH | .25 | .25 Year |
| OTHER  |  |      |     |          |
| 990    | Study Seminar                                | DNR  | .25 | .25 Year |
| 610    | Workplace Experience                         | BUS  | .25 | .25 Year |

## **LEHIGH CAREER & TECHNICAL INSTITUTE** **2016-2017 Program of Studies**

“We have a career pathway for you!” **LEHIGH CAREER & TECHNICAL INSTITUTE** will teach the skills and knowledge necessary to be ready to start a career. With over forty career and technical course choices available for students, the opportunity to find a career pathway and be successful is a huge advantage for high school students.

Our career and technical programs are taught by instructors who have spent years training in their field of expertise to provide a state-of-the-art education. Students have the opportunity to participate in job shadowing, internships, and co-op experiences (job placement) as well as taking college courses while a student at LCTI. Take a few moments and read about all the exciting choices and enrollment options available to you at Lehigh Career & Technical Institute.

### **ENROLLMENT OPTIONS**

**Academic Center:** The Academic Center provides students in tenth through twelfth grades with the option of taking both their academic and career & technical course work at LCTI as full-day students. These rigorous academic courses will satisfy graduation requirements as well as complement the career & technical major of each student. Students will still graduate from their resident school districts and are encouraged to participate in extra-curricular activities back at their sending school. Students will be able to register for the full-day program during their school district’s regular course registration time.

**Half-day enrollment:** Students in **ninth through twelfth grade may** choose the half-day enrollment option. The half-day option provides students with career & technical education at LCTI and the required academics at their respective school districts. Students are encouraged to take high-level course work at the sending district which will provide the academic background necessary to be successful in today’s highly technical careers.

**Flex time enrollment:** Another option that may suit students’ individual needs is the flex-day program. The flex program is designed to provide students with technical coursework on a limited schedule. Students may choose to come to LCTI for one or more periods per day depending upon their needs. Students may attend one or both semesters and may attend for multiple years. Many students use this technical educational training as a jump start to a technical degree in a four-year institution. Both the half-day and flex-day options may be chosen during the regular course registration process.

### **WHY ENROLL?**

**Why enroll?** Lehigh Career & Technical Institute clearly has the potential to offer students many career opportunities in a schedule that will serve individual needs. Students may decide to pursue career & technical education starting with their freshman year or may start as a sophomore, junior, and even a senior. With the rising cost of post-secondary education, students need to make critical career decisions that result in a postsecondary plan that has a likelihood of being successful. The more than forty career & technical offerings made available to students give them the skills and education that is necessary to make sound career decisions and become productive citizens in today’s global economy.

**Lehigh Career & Technical Institute (LCTI) does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities, and provides equal access to the Boy Scouts and other designated youth groups. Inquiries may be directed to LCTI’s Title IX and Section 504 Coordinator for students at 610-799-1357, 4500 Education Park Drive, Schnecksville PA 18078, or LCTI’s Compliance Officer for personnel at 610-799-1385.**

## ACADEMIC CENTER COURSE OFFERINGS

All courses in the LCTI Academic Center are college-preparatory and will meet graduation requirements. Courses are assigned based on classes completed at the sending district prior to attending LCTI. All science courses are lab-based and a graduation project is required for all Academic Center students. The courses offered in the Academic Center are listed below.

| <b>English</b>                   | <b>Mathematics</b>       | <b>Science</b>           | <b>Social Studies</b>  | <b>Other</b>             |
|----------------------------------|--------------------------|--------------------------|--|--------------------------|
| ELA II                           | Geometry                 | Biology                  | American Studies II  | Wellness/<br>Fitness 11  |
| ELA III<br>Accelerated ELA III   | Algebra II               | Chemistry                | World Cultures   | Wellness &<br>Fitness 12 |
| ELA IV<br><br>Accelerated ELA IV | Pre-Calculus             | Physics I<br>Physics II  | American<br>Government/Civics/Economics<br><br>Accelerated American<br>Government/Civics/Economics |                          |
| LCCC English Course              | Calculus                 | Environmental<br>Science |  |                          |
|                                  | LCCC Academic<br>Courses |                          |  |                          |

### Lehigh Career & Technical Institute Academic Center Course Schedule 2016-2017

| <b>Grades</b>    | <b>Semester I</b>                             | <b>Semester II</b>                            |
|------------------|---|---|
| 10 <sup>th</sup> | Math  | Math  |
|                  | Science                                       | Science                                       |
|                  | ELA II  | ELA II  |
|                  | American Studies II                           | American Studies II                           |
| 11 <sup>th</sup> | Math  | Math  |
|                  | Science                                       | Science                                       |
|                  | ELA III                                       | ELA III                                       |
|                  | *Wellness/Fitness                             | World Cultures*                               |
|                  | Elective*                                     | Elective*                                     |
| 12 <sup>th</sup> | ELA IV  | ELA IV  |
|                  | American<br>Government/Civics/Economics       | American<br>Government/Civics/Economics       |
|                  | Wellness & Fitness                            | Wellness & Fitness                            |
|                  | Credit Recovery or LCCC Courses<br>(Optional) | Credit Recovery or LCCC Courses<br>(Optional) |

\*Semester Course

## LCTI ACADEMIC OPTIONS FOR HALF-DAY STUDENTS

Lehigh Career & Technical Institute (LCTI) provides academic courses to some half-day students who attend the school. It is very important for students to be successful in both their academic and technical course work. The courses taken at LCTI are necessary to meet the student's graduation requirements. If a student does not complete an academic course with a passing grade, the course must be re-taken. LCTI does not offer a summer school; however, this option may be available through the sending high school. It may also be possible for courses to be made up during the students' senior year; however, make up courses scheduled in the senior year can cause the student to lose the opportunity for a Cooperative Education job placement. If the coursework is not made up, graduation from high school may be jeopardized.

The following academic courses for half-day students may be required while attending LCTI.

### **10th grade: American Studies II**

The American Studies II course addresses the development of the United States throughout the twentieth century. This course is aligned to the Pennsylvania Core Standards for Social Studies as well as Reading, Writing, and Listening and Speaking. Through various activities and lessons, these standards will be met to understand the development of the United States as a world power; focusing on economic and industrial development, political trends, society and cultural problems and achievements. The students will develop an understanding of the progress of technology and social groups. They will be expected to evaluate the changes of culture in society and analyze the political contributions of individuals and events of the periods studied. American Studies assignments also include the integrated concepts between this history course and various Career & Technical Labs. Students will be assessed formally and informally to determine mastery of the content for the duration of the academic year.

### **11th grade: Wellness & Fitness**

Course Overview: The Wellness Program provides students with life-changing information on nutrition and various techniques on stress management that they can use throughout life. The most common mental disorders will be researched and students will receive training on suicide prevention. During nutrition, students will investigate the harmful ingredients found in the foods they eat on a daily basis, analyze products served by several fast food chains and research healthy alternatives.

The Fitness Program is designed to acquaint students with the benefits of physical activity in their lives and to promote life-long wellness and fitness. The course, which is held in the state-of-the-art LCTI Fitness Center, will feature various strength and conditioning principles, such as specificity, progression and overload, along with multiple training techniques, such as CrossFit, Tabata, Yoga, and an assortment of technology-based exercises.

## LCTI CAREER & TECHNICAL EDUCATION OPTIONS

At Lehigh Career & Technical Institute, students learn by doing. Teachers guide students from instruction to action, helping them tackle projects that mirror on-the-job challenges as they develop the knowledge and skill necessary to secure industry credentials, earn college credit or both. For example, marketing students manage a store on their way to earning National Retail Federation certification. Programs are identified as either Program of Study (POS) or TECH PREP which designates the type of post-secondary credit options available. Students who participate in the POS programs have the ability to earn advanced college credits through SOAR (Students Occupationally and Academically Ready) or through articulation credit with a specific post-secondary school. Tech Prep programs only offer articulation credit where available.

LCTI's programs fall into five areas of study:

### **ARTS AND HUMANITIES**

***Advertising Design/Commercial Art:*** Students will learn the latest Adobe graphic design software currently used in the professional workplace. The emphasis of the program is based on Adobe Photoshop, Illustrator and InDesign Creative Cloud and creating a printed and electronic portfolio of work produced through these programs. Students are able to receive certification for Adobe Photoshop, Illustrator and InDesign through Adobe endorsed Train Simple. In addition to the Adobe Creative Cloud, students will learn traditional illustration skills such as pencil drawing and shading, water color, color pencil, scratch board and various other mediums. Photography for advertising is used in class and students will learn the use of a Digital Single Lens Reflex camera and the setup of strobe lights. Students are able to concentrate in three different career objectives which are Graphic Design, Sign-Making or Illustration. **(POS)**

***Commercial Photography/Electronic Imaging:*** Students who select this specialty will receive training in photography both in the studio and on location using the latest digital camera techniques and digital computer technology for processing and printing images. The course includes professional lighting techniques and design elements for a wide variety of subjects including wedding and portraiture, products for advertising, as well as photojournalism and editorial markets. **(TECH PREP)**

***Drafting/Computer-Aided Design:*** Students combine their industrial and mechanical interests with creativity and work toward successfully moving into mechanical, architectural or civil engineering careers. Drawing techniques, architectural plans, advanced AutoCAD, and engineering, open the world of CAD to students. This solid foundation assists Drafting/CAD students who wish to pursue further education and professional careers. **(POS)**

***Painting and Decorating:*** Stenciling, wallpaper hanging, furniture refinishing and decorative finishes are a few of the emphasis in this program. Students learn to paint and maintain interiors and exteriors of homes, businesses and historical buildings. Included in the variety of projects students undertake is the LCTI House Project, a student-built house painted by the students. **(TECH PREP)**

### **BUSINESS AND COMMUNICATION TECHNOLOGY**

***Administrative Office Technology/Accounting:*** Students are exposed to a variety of both technical and interpersonal skills to help prepare them for the 21<sup>st</sup> century office. Skills include office procedures, business communications, accounting, word processing, and utilizing the Microsoft Office Suite (Word, Excel, PowerPoint, Access, and Publisher). Additional topics include entrepreneurship, teamwork, and public speaking. **(POS)**

#### ***Computer & Networking Technology:***

Students are prepared for advanced network training and the industry standard CompTIA A+ and **Network+** Service Technician certifications. The program takes students from basic PC hardware through operating systems and networking. Students will also learn the MS Office Suite, customer service and support, and advanced network support. Students have the opportunity to participate in dual enrollment coursework for college credit; additionally, satisfactory completion of the program may grant college course credit through articulation agreements with LCCC. **(POS)**

***Marketing and Business Education:*** Students learn about finance, retail marketing, banking, entrepreneurship, promotions and other important aspects of marketing through virtual business software and retail experience in the school's store. They examine what is necessary to run a business, promote a product or manage a department. Practical experience is available through the student-managed school store and by participating in community internship opportunities. **(POS)**

***Print Technology/Graphic Imaging:*** Students creatively design printed materials such as full-color books, posters, packaging, displays, stationary, as well as specialty items like mugs and shirts. Using the most current versions of Adobe Creative Cloud software on Apple Macintosh computers, students then reproduce their attractive projects on state-of-the-art copiers, printing presses, and bindery machines in real production environment. **(POS)**

***Web Design/Web Programming:*** Students learn the fundamentals related to web page design and website development, graphics, multi-media and HTML coding. Students are taught the tools for rapid web page production and basic server-side programming techniques to handle everything from forms transmittal to building dynamic interactive web pages, intranet, extranet and e-commerce applications. **(POS)**

## **ENGINEERING**

***Electromechanical/Mechatronics Technology:*** Students learn an innovative curriculum which combines hands-on training with real world industrial equipment and software. Students get a solid background in industrial, electrical and electronic systems, A.C. and D.C. motors, motor controls, power distribution systems, programmable controllers, hydraulics, pneumatics, mechanical drives, transformers, process control systems and troubleshooting. **(POS)**

***Electronics Technology/Nanofabrication:***

Students are taught the principles of electronics. From DC Circuits to Solid State Devices they learn to design, build, and test electronic circuits. LCTI has a fully functioning Class 1000 fabrication room (cleanroom) where students create the silicon chips that are the foundation of the information age and the heart and soul of modern electronics.

**(POS)**

***Precision Machine Tool Technology:*** LCTI's Precision Machine lab is recognized as a Haas Technical Education Center and incorporates lessons and demonstrations, as well as extensive applications training in reading blueprints, operating a digital lathe, milling machine, drill press and other machine shop operations in the curriculum. Students train on state-of-the-art CNC machine tools placed in the lab by Haas Automation. **(POS)**

***Pre-engineering and Engineering Technology:*** This pre-engineering program is a sequence of courses which, when combined with traditional mathematics and science courses, introduces students to the world of engineering. Students study the principles of engineering, engineering design, digital electronics and computer integrated manufacturing. **(POS)**

## **INDUSTRIAL TECHNOLOGY**

***Auto Body/Collision Repair Technology:*** Students learn about the tools and equipment associated with the collision repair industry, while learning welding, non-structural and structural damage analysis, estimating, and repair techniques, along with paint preparation and refinishing systems used on today's technologically advanced automobiles. This comprehensive course of study and the volume of exposure students receive allows them to step into the workforce immediately following graduation or continue studies at the post-secondary level. **(POS)**

***Auto Technology:*** Students in this program are prepared to diagnose and repair automobile systems including electrical systems, ignition and emission systems, engine cooling and lubrication, front ends, air conditioning, brakes, transmissions, engines and drive trains. Students participate in the nationally recognized Automotive Youth Education Systems (AYES) industry partnership. The instructors of this program are Master Certified ASE Technicians who utilize state-of-the-art equipment to prepare students to become automotive technicians. **(POS)**

***Cabinetmaking & Millwork:*** Cabinetry, wood products design and layout and construction open the world of cabinetmaking & millwork to students. Students are taught to read blueprints, make shop drawings, and produce components with trade-related hand and power tools and machinery. The newly expanded lab and curriculum provides knowledge of lumber products adhesives, fastener, finishing, 32mm cabinets and counter top fabrication. Technology has entered this rewarding construction trade with the addition of CNC router technology. **(POS)**

***Carpentry:*** Blueprints, site work, construction footings, framing floors/walls/ceilings/roofs, radon control, insulation and power tools are some of the areas taught in Carpentry. Students participate in the LCTI Student House Project where a home is built and sold at auction upon its completion. Students learn how the building industry works, its standards, and what is required to complete a project on time and at cost. **(POS)**

***Diesel/Medium and Heavy Truck Technology:*** Students gain experience with drive trains, clutch assemblies, transmissions, diagnostics, steering and other aspects of this industry. Students also study suspension, diesel engines, gasoline engines, bearings and seals. The trucking industry needs professionals to service the truck fleet that keeps industry and commerce moving in the United States. LCTI can provide students with the necessary expertise they need to succeed in this industry. **(POS)**

***Electrical Technology:*** Students learn residential, commercial, and industrial electrical wiring, as well as fluid power technology planning and wiring. Students are taught to install duplex and split wired duplex receptacles, single pole switches, 3-way and 4-way switches and Ground Fault Circuit Interrupters. **(POS)**

***Heating/Air Conditioning & Refrigeration:*** Students learn to install, troubleshoot and repair air conditioning, heat pumps, commercial refrigeration units and gas and oil heating equipment. Skilled technicians are proficient in reading electrical diagrams, diagnosis of electrical problems, air distribution designs, copper and steel pipe cutting, soldering and fabricating fiberglass and sheet metal duct systems. Certifications include EPA Freon Handling and ICE. **(POS)**

***Heavy Equipment Operations & Preventive Maintenance:*** As a student in this fast-paced and diverse program, you will learn the safety, maintenance and operating techniques for a wide variety of earthmoving equipment. Students will also receive instruction in soils, erosion and sediment control, site preparation, aggregate production, concrete and asphalt paving, surveys and grades, and utility installation. In addition, students will have the opportunity to learn machine systems, parts identification and ordering, and preventative maintenance techniques in a state-of-the-art facility. **This program is not available to ninth grade students. (TECH PREP)**

**Applied Horticulture:** This program, a combination of general horticulture (plant science) and hands-on applications, prepares students to produce, process and market plants and flowers used for ornamental and aesthetic purposes as well as establishing, maintaining and managing various horticultural businesses. Instruction emphasizes knowledge, understanding and applications important to the success of businesses such as floriculture (floral design), greenhouse and nursery operations and management, and landscape technology. **(POS)**

**Masonry:** Students will learn various layouts and pattern designs using brick, concrete masonry units, stone and ceramic tile. This comprehensive program teaches students how to correctly use the necessary tools and equipment to build simple wall structures, fireplaces and brick sculptures. Ceramic tile installation and thin stone veneer applications are also included in the curriculum. Students also participate in the student-built house project. **(POS)**

**Supply Chain Management & Logistics Technology:** Students learn inventory control, purchasing, receiving, shipping, equipment operation and maintenance in a state-of-the-art 17,000 square foot distribution center. Students train with current industry technology including handle-held track pads and computers, vertical and horizontal carousels, a computer-controlled conveyor and a computer-integrated warehouse management system. Students explore the supply chain of products from their global origin to the consumer including modes of transportation. **(POS)**

**Plumbing and Heating:** In this high priority occupation program, Students will learn the basic to the advanced skills of Plumbing & Pipe Fitting. Repairing and installation of items such as, but not limited to; Faucets, Bathtubs, Toilets, Sump Pumps, Sewage Pumps, Water Heaters, Boilers, Water Softeners, Well Pumps, Solar Heating Systems, Chilled Water, Air Conditioning and Radiant Heating Systems. This lab will teach skills such as but not limited to; brazing, soldering, threading, pressed, rolled/grooved, flared, pipe fitting and measurement and fused joints. Students will work with PEX, Copper, Steel, Cast Iron, PP-R, PVC and CVPC Pipe and Tubing. This program incorporates a multi-level and fast paced, technology enriched learning environment. **(POS)**

**Small Engines/Recreational Vehicle Repair:** Students will learn to diagnose and repair lawn mowers, chain saws, jet skies, motorcycles and go-karts. Students will learn about the small engine and the vital components to effectively make the engine perform to maximum efficiency. Students will also learn about brake systems, transmissions, hydraulics, hydrostatics and drive systems. Students will learn skills that involve welding, cutting with a torch, cylinder honing and boring. **(POS)**

**Welding Technology:** This course teaches students shielded metal arc welding, gas metal arc welding, flux cord arc welding, welding inspection, testing, and safety/emergency procedures. The program operates under entry level certification authorization by the American Welding Society and a special arrangement with Lehigh Carbon Community College permits students to earn a national skills certificate and an Associate Degree. **(POS)**

## **HEALTH AND HUMAN SERVICES**

**Commercial Baking:** Cake decorating, breads, rolls, sweet goods, pastries, pies, doughnuts and nutrition are all part of this course. Students learn the fundamental principles and procedures of operating a fully functioning bakery and retail bake shop, including preparation, display and management. With attention to both theory and practice, this course is designed to prepare students for entry-level positions in the commercial baking industry. **(POS)**

**Cosmetology:** Students learn hair styling, hair cutting, hair coloring, chemical texturizing, nail/skin care and salon business operations. Students learn these skills through clinical practices offered at the school salon. Preparation for the Pennsylvania State Board Examination will enable students to become licensed as a cosmetologist and will allow them to work in a challenging and creative profession. **(TECH PREP)**

**Culinary Arts:** Stocks, soups, sauces, appetizers, desserts, main dishes, menu planning and nutrition are just some of the aspects of this program. Students learn front of the house and back of the house skills working in the school restaurant. LCTI's program is certified by the American Culinary Federation and is nationally recognized as exemplary in all areas of the curriculum. **(POS)**

**Dental Technology:** Students who enroll in this program learn a variety of skills that will enable them to become a dental assistant, dental laboratory technician, and/or pursue a career as a dental hygienist. The major areas of study in the course include: dental radiology, oral pathology, chair-side dental assisting, anatomy and physiology, dental materials, sterilization, and dental office business procedures. **(POS)**

**Early Care & Education of Young Children:** Students studying childcare will learn child and staff health, child development, early childhood education, special education, discipline and guidance of children, childcare program development and professional development. **(POS)**

### ***Emerging Health Professionals:***

The Emerging Health Professionals Program provides high school seniors with an opportunity to experience a variety of health care careers in a hospital setting and take Penn State/Lehigh Carbon Community College science courses for college credit. Students spend one day a week rotating among various departments of a hospital. Students will experience these departments throughout the three Lehigh Valley Hospital & Health Network facilities, St Luke's University Health Network Allentown Campus, Country Meadows, and Good Shepherd Rehabilitation Network.

The hospital portion of the program provides students with observational experience that enables students to observe various health care professionals as they work with patients. Also, students have the opportunity to meet various health career professionals during presentations within the LVHN community. In addition to these experiences, students are given an overview of the health care industry and all that it entails throughout their coursework at LCTI. **This program is only available to senior students. (POS)**

**Health Occupations/Health Related Technology:** Students are taught about the patient’s environment, nutrition, special treatments, care of the elderly, hospital procedures, and more. The world of medicine and science is growing and changing daily creating an urgent need for well educated skilled professionals. Students have the opportunity to train and test for their Health Assistant Certification. Additionally, students are afforded the opportunity to achieve the Nurse Aide Training Certificate in their senior year making them eligible to sit for the National Nurse Aide Assessment Program exam. (POS)

**Criminal Justice:** Students learn Pennsylvania criminal and traffic laws, the legal use of force, search/seizure/evidence procedures, arrests and other aspects of law enforcement. Students also train in a fire arms simulator and conduct mock disaster drills to gain practical emergency skills. (POS)

### **OTHER PROGRAM OPTIONS**

**Service Occupations:** Five curricular areas are offered in this program: Building Trades Maintenance, Food Service, Hospitality Services, Indoor/Outdoor Maintenance, and Supply Chain Management & Logistics Technology. Each area is designed to help the student transition from basic entry-level skill development to more advanced technical training or directly into the workforce. A skills screening will be done to determine the readiness and interest of the student. Results of the screening will be provided to the student’s IEP team.

**Career Academy Program:** Provides the nine participating school districts of Lehigh County an alternative for at-risk students to receive a high school diploma and work toward a career goal in their program of choice. Selected technical programs at LCTI are available to Career Academy Program (CAP) students. They receive academic instruction in English, mathematics, social studies, science, health/wellness, physical education, job readiness, and enrichment coursework. The program operates on a three-day rotation schedule with two out of three days focused on Career & Technical Education Programs. Programs include: Auto Specialization Technology, Building Trades Maintenance, Early Care & Education of Young Children, Electrical Technology, Health Occupations/Health Related Technology, and Office Systems Technology.

#### ***School-To-Career - What We Are All About!***

- **Job Shadow** Students accompany employees through part of a typical day and learn about the varied aspects of their job and skills required to work in the field.
- **Internship** Students may participate in a business match program that allows them to spend a period of time working in their field of study.
- **Cooperative Education** Students in 11<sup>th</sup> and 12<sup>th</sup> grade may participate in a business match program that allows them to spend a portion of the school year working in their field of study. Students pursue their academic coursework on a half day schedule and report to their place of employment for the remainder of the day.

## **DUAL ENROLLMENT PROGRAM**

### **Did you know you can take college classes while attending LCTI?**

#### ***Opportunities to earn college credit while still in high school***

You won’t have to break the bank to attend college. Each credit course at Lehigh Carbon Community College (LCCC) costs about half the regular tuition rate and less than a fourth of the cost for a comparable credit course at any one of Pennsylvania’s State universities.

**What is a placement test?** A placement test is given to students who are interested in taking college courses at LCCC. Students must obtain a minimum score to be eligible for college classes. More information regarding placement testing can be found on [lccc.edu](http://lccc.edu).

**Dual Enrollment requirements?** Students must be Level II or higher in their lab programs and maintain a minimum of a “C” average to participate in Dual Enrollment. Students must also have good attendance and no discipline referrals. The tuition and associated costs for dual enrollment courses must be paid by the student/parent.

**Want to see if Dual Enrollment is right for you?** Our free, one credit course “**The College Experience**” is an opportunity to explore dual enrollment. In “**The College Experience**” you’ll learn what to expect if you go to college, as well as what will be expected of you. Upon completion of the course, students have the option of taking a placement test to determine eligibility for future classes at a reduced rate paid by the student/parent.

## Graduation Plan Classes of 2017, 2018, 2019, 2020

| Subject                     | Credits Required | Grade | Courses Completed/To Be Completed | Year | Total |
|-----------------------------|------------------|-------|-----------------------------------|------|-------|
| English                     | 4                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Math                        | 3                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Science                     | 3                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Social Studies              | 3.5              | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Health/PE                   | 2                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Electives                   | 5                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| Arts & Humanities Electives | 2                | 9     |                                   |      |       |
|                             |                  | 10    |                                   |      |       |
|                             |                  | 11    |                                   |      |       |
|                             |                  | 12    |                                   |      |       |
| TOTAL CREDITS=              |                  |       |                                   |      |       |

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The Allentown School District is an equal rights and equal opportunity agency. It does not discriminate against individuals or groups because of race, color, national origin, religion, age, gender, marital status or qualified disabilities (as defined by law).

The Allentown School District will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

For information about this policy, please contact the Director of Human Resources (Title IX, Sec. 504, and ADA Coordinator) at the A.S.D. Administration Center, 31 South Penn Street, P.O. Box 328, Allentown, PA 18105.