

Course Catalog and Curriculum Guide



THE ACADEMIES OF DEARBORN

MY PURPOSE • MY PATH • MY FUTURE

Dearborn Public Schools

Revised: June 2019

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ALLIED HEALTH PROGRAM (MBCC)

ALLIED HEALTH *Academy of Health Sciences*

This full-year, two-hour block course is designed to create an awareness of career possibilities in health care and inform students of the educational options available for health science and health technology programs. Instruction includes beginning anatomy and physiology, medical terminology, medical ethics, diseases and disorders. Hands on instruction in first aid, vital signs, universal precautions and basic medical office procedures is covered. The course prepares students for a variety of health technology programs. Upon completion of the program, students are prepared for entry-level employment in a medical setting and for transition to a post-secondary (community college associates degree or four-year university bachelor's degree) health science program. Students may earn their *American Red Cross CPR, AED and First Aid* certificates. Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

ADVANCED ALLIED HEALTH - CLINICAL *Academy of Health Sciences*

This full-year, two-hour block course will provide students transferable skills and technical experience to meet the needs of the healthcare industry. The overall goal of this second year is to review the core set of knowledge and skills, build upon previous knowledge in both areas, and observe and apply it in the worksite setting. A simulated medical setting and laboratory is provided within the classroom for practicing clinical skills on site. Students will have the opportunity to intensely observe health care professionals in their area of interest during clinical rotations. Students will be assigned mentors in the health care facility to increase their exposure to the knowledge and skills needed, professional requirements and employability skills, and reality of the workplace. . Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

(Prerequisite: Students must pass Allied Health with a grade of "C" or better)

ADVANCED ALLIED HEALTH - DENTAL ASSISTING *Academy of Health Sciences*

This full-year, two-hour block course will provide students with the continued knowledge and skills necessary for clinical dental assisting procedures. The lecture portion will focus on anatomy and physiology of the face and neck as well as lesions, diseases, x-rays, and deformities commonly seen in the oral cavity. The clinical portion will introduce students to basic clinical setups, unit breakdowns, materials commonly used in the dental office and delivery of clinical procedures. Students will also be required to participate in 5 hours of dental externship per week. Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

(Prerequisite: Students must pass Allied Health with a grade of "C" or better)

ADVANCED ALLIED HEALTH - EMT BASIC *Academy of Health Sciences*

This full-year, two-hour block course will prepare students to respond to medical emergencies and provide on-scene treatment, stabilization and ambulance transport of ill or injured patients. Students will learn CPR, anatomy and physiology, airway management, patient assessment, care of medical and traumatic emergencies, blood borne pathogen protection, patient extrication from damaged vehicles, patient transport, HazMat response tactics, and incident command. Students are prepared for the National Registry of Emergency Medical Technicians (NREMT) certification exam, State of Michigan licensure and to become an EMS professional. Students who successfully complete this course meet MDHHS requirements for an Emergency Medical Technician license. Course applications are submitted to MDHHS for approval.

Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

(Prerequisite: Students must pass Allied Health with a grade of “C” or better. Students must be 17 years old/Seniors to take class and can not take the licensing exam until their 18th birthday)

ADVANCED ALLIED HEALTH - MEDICAL ASSISTING *Academy of Health Sciences*

This full-year, two-hour block course focuses on the back office, hands-on concepts and skills, including taking vital signs, venipunctures, injections, EKG’s, collecting and processing lab specimens, preparing patients for examinations, assisting with office surgeries and other treatments and procedures. Emphasis is also placed on basic medical terminology and medical math. Students will complete a comprehensive job shadow and/or 130-hour externship during the course. Students are encouraged to join and compete in Health Occupations Students of America (HOSA). Students may earn a Medical Assisting Certificate stating that they are proficient in the skills of venipuncture, EKG’s, and injections upon successful completion of class.

(Prerequisite: Students must pass Allied Health with a grade of “C” or better)

ADV ALLIED HEALTH - SPORTS MED/PT ASSISTING *Academy of Health Sciences*

This full-year, two-hour block course builds on knowledge and skills from the first year Allied Health course and provides students with a general overview of athletic training (AT), sports medicine, physical therapy (PT) and its history. It includes introductory information about the AT/PT’s scope of practice: injury prevention, treatment, rehabilitation, emergency injury management and administrative functions. This course is intended to help students gain an understanding of sports medicine and physical therapy’s various associated disciplines and the role they play in the physically active community. This course is also intended as an introduction and foundation for students interested in AT/PT colleges and careers. Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

(Prerequisite: Students must pass Allied Health with a grade of “C” or better)

ER RESPONSE TRAINING *Academy of Health Sciences*

This full-year, one-hour block course teaches participants to respond to a medical emergency with advanced first aid and CPR skills, preparing the student to perform the role of a First Responder in a variety of workplace settings. Students will also be prepared to pursue further education and training toward a career in emergency medicine. The second semester of this course focuses on common prefixes, suffixes and combining terms in medical terminology today. Students may earn a variety of *American Red Cross* certificates. Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

PHARMACY TECHNICIAN *Academy of Health Sciences*

This full-year, one-hour block course encompasses the knowledge and skills necessary to help prepare you to work as a Pharmacy Technician. Emphasis is placed on basic medical terminology and medical math with special preparation given to taking the Pharmacy Technician certification exam (go to www.ptcb.org for additional information). Emphasis will also be placed on procedural skills, basic dosage calculations, terminology and abbreviations as they relate to pharmacology. Students are encouraged to join and compete in Health Occupations Students of America (HOSA).

(Prerequisite: Students must pass Allied Health with a grade of “C” or better and be Seniors to take class)

ART COURSES

Aligned to ALL Academies

ADV DRAWING / PAINTING 2-4 *All Academies*

This course is for all students who want a more in-depth experience in two-dimensional fine arts media. Students will use their prior art experience to explore abstract concepts and techniques, then develop a theme or concentration in their artwork. Emphasis will be placed on developing subject matter as well as improving techniques. Students will be shown how to organize a portfolio of their work. This class may be taken more than once at various levels for additional credit. (Prerequisite: Drawing/Painting 1)

ADV SCULPTURE 2-4 *All Academies*

This course is for all students who want a more in-depth experience in three-dimensional sculptural media. Students will use their prior art experience to explore abstract concepts and techniques, then develop a theme or concentration that highlights form in their artwork. Emphasis will be placed on developing subject matter as well as improving techniques. Students will be shown how to photograph and organize a portfolio of their work on line. This class may be taken more than once at various levels for additional credit. (Prerequisite: Sculpture 1)

ADV PHOTOGRAPHY 2-4 *All Academies*

The purpose of this one semester course is to continue to discover the basic concepts of black and white photography presented in Photography 1 and to present more advanced techniques in both darkroom and camera skills. Students will explore such topics as the use of filters, lenses, dodging and burning, tinting, hand coloring, photomontage, sandwich printing, the photo essay, available light photography, giant enlargements, dry and wet mounting, vignetting, and many other exciting ideas. The very basics in photographic chemicals, papers, and films will be provided, but the students can expect that they will need to supplement these supplies with additional purchases on their own. In addition to these, students will be expected to supply their own 35mm camera. The basis of the course, however, will continue to be communication skills through the use of photography and the written word. (Prerequisite: Photo 1)

ADV CERAMICS 2-4 *All Academies*

This course is for all students who want a more in-depth experience working with clay. Students will use hand building and wheel techniques in more expansive ways. Greater concentration on decorative processes including slips and glazes will be encouraged. This class may be taken more than once for additional credit. (Prerequisite: Ceramics 1.)

AP STUDIO ART 2D DESIGN (EFHS, FHS) *All Academies*

This course is a year long commitment to building a portfolio that will be used to submit to the AP College Board as their exam. We will focus on creating a 2D Design portfolio based on advanced concepts and ideas at a college level. The course encompasses three parts. The Breadth, which will focus on showing ability in many areas of technique and style, as well as, media. The Concentration, is a body of 12 works that fall into a particular theme that highlight the principles of 2D design. The third section is Quality, this encompasses 5 works that demonstrate the best quality that the student is capable of producing.

AP STUDIO ART 3D DESIGN (EFHS, FHS) *All Academies*

This course is a year long commitment to building a portfolio that will be used to submit to the AP College Board as their exam. We will focus on creating a drawing portfolio based on advanced concepts and ideas at a college level. The course encompasses three parts. The Breadth, which will focus on showing ability in many areas of technique and style, as well as, media. The Concentration, is a body of 12 works that fall into a particular theme that highlight a function of drawing. The third section is Quality, this encompasses 5 works that demonstrate the best quality that the student is capable of producing.

AP STUDIO ART DRAWING (EFHS, FHS) *All Academies*

This course is a year long commitment to building a portfolio that will be used to submit to the AP College Board as their exam. We will focus on creating a 3D Design portfolio based on advanced concepts and ideas at a college level. The course encompasses three parts. The Breadth, which will focus on showing ability in many areas of technique and style, as well as, media. The Concentration, is a body of 12 works that fall into a particular theme that highlight the principles of 3D design. The third section is Quality, this encompasses 5 works that demonstrate the best quality that the student is capable of producing.

DRAWING / PAINTING 1 *All Academies*

This course is an intermediate course in two-dimensional fine arts media. Students will work with a broader range of processes building upon their introduction drawing and painting experiences, focusing mostly on realism, observation, and proficiency in traditional fine arts techniques and materials.

(Prerequisite: Intro 2D or Intro 3D)

INTRO 2-D DESIGN *All Academies*

This course is a foundation class exploring a variety of materials and techniques used in drawing, painting and design art processes. Students will develop their ability to use elements and principles of design to create expressive qualities in their artwork. This is a general art class designed for all students.

INTRO 3-D DESIGN (DHS) *All Academies*

This course is a foundation class focusing on relief sculpture, sculpture in the round and printmaking. Students will develop their ability to use elements and principles of design to create expressive qualities in their artwork. This is a general art class designed for all students.

(Prerequisite: Intro 2-D)

JEWELRY & METALSMITHING 1 *All Academies*

Students will learn the basic techniques necessary to create jewelry as sculpture. A variety of materials will be used in this class such as clay, copper, brass, beads, wood, and other natural materials.

(Prerequisite: Intro 2D or Intro 3D)

ADV JEWELRY & METALSMITHING 2-4 *All Academies*

This course is geared at the refinement of previously learned skills and techniques used to create jewelry as sculpture. While a variety of materials are still used in the production of the course work, more emphasis is placed on the use of metals and on the further development of metal techniques, skills, and inspiration.

(Prerequisite: Jewelry & Metalsmithing 1)

CERAMICS 1 *All Academies*

This is a course exploring clay as a medium of artistic expression. Students will use various hand building and ceramic decoration processes and will be introduced to wheel throwing techniques. Students will be introduced to the use of kilns and the firing process.

(Prerequisite: Intro 2D or Intro 3D)

PHOTOGRAPHY 1 *All Academies*

The purpose of this one-semester course is to teach the basic concepts of black and white photography and to open a new field of exploration for the individual students. The very basics in photographic chemicals, papers, and films will be provided. In addition to these, each student must supply their own 35mm camera. The history of photography, its chemical process, the care of the camera, and many photo techniques will be explored. The basis of the course, however, will be communication skills through the use of photography and the written word.

(Prerequisite: Intro 2D or Intro 3D)

SCULPTURE 1 *All Academies*

This course will build upon three-dimensional design concepts learned earlier. Sculpture processes: modeling, carving and constructing will be explored. Emphasis will be placed on developing subject matter as well as expanding technique.

(Prerequisite: Intro 2D or 3D Design)

ASPIRING DEARBORN EDUCATORS (ADE) PROGRAM

Housed at MBCC but taught in the Home High Schools

CHILD DEVELOPMENT (MBCC) *Academy of Human Services*

This one-semester, one-hour block course is taught in the three high schools. Students will learn to communicate and understand the growth and development patterns of children. Emphasis is placed on the importance of a strong parent-child relationship as an influence on the child's social, emotional, physical, and intellectual growth. This course will provide young people with the knowledge and training to become effective parents whenever they assume the responsibilities of that role in life. They will be exposed to the belief that every child should be wanted and planned for by the parents and that parents need to provide children with the best possible environment in which to grow and develop. Students are encouraged to join and compete in Family, Career and Community Leaders of America (FCCLA).

CHILD GUIDANCE (MBCC) *Academy of Human Services*

This one-semester, one-hour block course is taught in the three high schools. Students will learn to recognize and encourage the development of young children. Emphasis will be placed on the critical role early childhood plays in human development. This course will provide young people with the training needed to play an effective role (parent, teacher, etc.) in a child's life. Students will be required to complete very specific and challenging activities that will extend the classroom learning. This class will promote the value of careers in childcare and education. Students will produce a portfolio that will demonstrate their ability to work with children after being exposed to each of the six competency goals according to the CDA (Child Development Associate) credentialing program. The six goals are: 1) to establish and maintain a safe, healthy learning environment, 2) to advance physical and intellectual competence, 3) to support social and emotional development, 4) to establish positive and productive relationships with families, 5) to ensure a well-run, purposeful program responsive to participant needs, and 6) to maintain commitment to professionalism. .

ELEMENTARY TEACHER CADET (MBCC) *Academy of Human Services*

This one-semester, one-hour block may be taken one or two semesters. Students will attend a one-week training session at the Administration Services center and then be placed in an elementary classroom four days per week. This blended learning course provides real-world experience and is designed for students interested in community service and/or teacher preparation. Students will learn reading foundation skills. There is also an on-line learning component. Students will learn the essentials of reading pedagogy to facilitate elementary student's reading proficiency. Students will apply reading foundation skills and pedagogy including small group instruction in the elementary classroom. Students will gain experience with employability skills: dress for success, communication, parent engagement. Students will maintain confidentiality with all aspects of the classroom experience. Students are encouraged to join and compete in Family, Career and Community Leaders of America (FCCLA).

Work Based Learning (WBL) Students leave school campus to work and apply job skills they have learned in previous business/technical classes as well as those being taken concurrently with their co-op job placement.

Seniors in the Aspiring Dearborn Educators program who pass the SAT with a minimum score of 530 math and 440 Evidence-based reading and writing may qualify for a paraprofessional teaching credential and be placed in paid or unpaid positions within Dearborn Public Schools, subject to District employment and hiring guidelines.

Work based Learning CTE (Co-Op) -- All Academies

Recommended prerequisites:

1. Student must be classified as seniors (17 Credits) and have completed or be currently enrolled in a State-Approved CTE Program.
2. Student must be enrolled in a DPS or HFC course aligned to their Educational Development Plan (EDP) and their CTE Program of Study during the Co-Op.
3. The Co-op job (WBL) training site must offer opportunities for training and experiences leading to a future trade or career that the student is considering pursuing.
4. Released time for Co-op (WBL) is granted from school, either a.m. or p.m..
5. A student may receive one-half credit hour per semester and for up to three hours for WBL (CTE).

BILINGUAL COURSES

ELL 1A, 1B

This level is specifically designed for literacy/beginning level students. The program introduces the basics of American culture to students at the basic level with limited or no English proficiency. Students will be using the texts: Visions and English Yes which will focus on reading a variety of genres, writing, listening, speaking and viewing based on a variety of themes. PLACEMENT: Entering students are evaluated by staff for proper assignment in these ability levels: English Literacy to Transitional.

ELL 2A, 2B

Students who are not native speakers of English may take advantage of the English-as-a-Second Language courses. These classes offer instruction in English and serve to help the student with limited English language skills progress into the regular curriculum. Students will be using the texts: Visions and English Yes which will focus on reading a variety of genres, writing, listening, speaking and viewing based on a variety of themes. Students will demonstrate familiarity with world literature, including authors beyond American and British literary traditions. PLACEMENT: Entering students are evaluated by staff for proper assignment in these ability levels: English Literacy to Transitional.

ELL 3A, 3B

These introductory English courses will continue the sequence of the 7th and 8th grade in literature, grammar and composition. All readings will be chosen to accommodate the reading level of ESL students and incorporate elements of the American culture and historical background. Emphasis will be placed on elements of the short story, novel and drama in an elementary but comprehensive manner. Several texts as well as hardbound and paperback books will be utilized to acquaint the student with these genres. Grammar, vocabulary, punctuation, diction and usage, spelling syntax, sentence and paragraph development will be an integral part of the first semester program.

ELL 4A, 4B

This course emphasizes writing skills. Students will learn the elements of essay writing in a variety of modes: descriptive, personal, comparison/contrast, cause/effect, persuasive and argumentative. Composition will be supplemented by the study of several novels, which have similar themes (e.g., *The Miracle Workers*, *To Kill a Mockingbird*...). Students will examine and write about such elements of literature as plot, setting, characterization, point of view and theme.

BUSINESS COURSES

BUSINESS MATH (DHS, EFHS) *Academy of Business and Hospitality*

This course is designed to enable students to learn and apply mathematics skills to a business setting. This course introduces students to the mathematical concepts and applications necessary for successful business careers. Topics will include bank services, payroll, tax deductions, insurance, compound interest, consumer credit and mortgages. Upon successful completion of this course students should be able to:

Solve basic math problems using whole numbers, decimals, fractions, mixed numbers, percentages, ratios, and proportions. Solve business math problems using equations. Maintain checking accounts and prepare bank reconciliations. Compute gross pay and payroll deductions. Create employee's earnings record and payroll register. Calculate property tax, state and federal income taxes. Determine health insurance premiums. Determine motor vehicle and property insurance. Compute simple and compound interest. Calculate open-end and closed-end credits. Determine mortgage payments.

BUSINESS TECH & MANAGEMENT 1, 2 (DHS) *Academy of Business and Hospitality*

This course meets the district's "computer" graduation requirements and the State's online requirement. Students who have good computer skills and are looking to increase their knowledge, use, and productivity will want this class. This is an intermediate to advanced computer and business skills class. Students will learn skills colleges and corporations expect and corporations in their employees. Using Microsoft Office, students begin with refresher training and proceed through more advanced technical and professional preparation, including advanced MS Office use, publishing/presentation design software, software integration for technical writing, etc. Business practices and employability skills are integrated into this course. Students may pursue their MOS (Microsoft Office) Certification. This course also covers the technical writing required in most universities.

Students are encouraged to be a member and compete using their skills in our national-winning Business Professionals of America (BPA) chapter, the State-recognized business organization.

COMPUTER APPLICATIONS *Academy of Industry, Technology and Innovation*

This course is a review of computers and technology in business. Using Microsoft Office, students learn how to create a word processing, database, spreadsheet, and presentation (PowerPoint) documents and use the internet responsibly. This course meets the district's "computer" graduation requirements and the State's online requirement.

COMPUTER SCIENCE DISCOVERIES *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course takes a wide lens on computer science by covering topics such as programming, physical computing, HTML/CSS, and data. Students engage with computer science as a medium for creativity, communication, problem solving, and fun. The course inspires students as they build their own websites, apps, games, and physical computing devices.

ENTREPRENEURSHIP 1 & 2 (DHS) *Academy of Business and Hospitality*

This is a full-year, one-hour block course will allow students to gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system. Entrepreneurship is designed for students with a focus in business, finance, or marketing, and/or other courses, who have an interest in developing the skills, attitudes, and knowledge necessary to become a successful entrepreneur.

INTRO BUSINESS *Academy of Business and Hospitality*

Students will learn valuable skills to obtain and keep a job in pursuit of a successful career path. Types of business resources from a consumer's point of view will be covered. Office procedures, management, and basic economic principles will be presented. In addition, skills using computer hardware, software, and other office equipment will be developed.

NTRO TO MICROSOFT KEYBOARDING (FHS) *Academy of Industry, Technology & Innovation*

In conjunction with the Technology Standards and Technology Advisory Committee (TAC), students are taught keyboarding. Computer lab activities align with technology standards and include keyboarding practice. Dearborn Public Schools aligns with ISTE (International Standards for Technical Education) and objectives for Keyboarding education.

INTRO TO WEB PAGE DESIGN (EFHS, FHS) *Academy of Industry, Technology and Innovation*

Successful businesses today must operate in the global economy and have a presence on the Internet. Students learn to design and maintain creative web pages for personal and business applications. This will be accomplished by learning general design concepts and the process of developing a Website from sketches to publishing. Then students will gain considerable "hands on" computer experience using Web development tools. This experience will be gained using the Macromedia Suite which includes Dreamweaver, Fireworks, and Flash. This course will also include an explanation of networks, learning basic HTML along with also learning the vocabulary of the World Wide Web..

MULTIMEDIA (EFHS, FHS) *Academy of Industry, Technology and Innovation*

Students learn advanced features of PowerPoint and gain extensive experience using Microsoft Publisher. This class is project-oriented and students have the ability to create projects on topics of interest to them. Digital images, art, graphics and sound are incorporated into computer projects to produce dynamic results. Macromedia Fireworks and Flash are learned in

order to produce attractive presentations. All programs used will be incorporated to create a spectacular final project.

(Prerequisite: Students must complete *Business Technology & Management 1 and 2* with a grade of “C” or better)

PERSONAL FINANCE *Academy of Business and Hospitality*

Students learn financial skills necessary for life after high school and successful independent living. Topics include budgeting, buying decisions, managing credit, investment options, stock market, and applying math for daily living. Students learn basic payroll calculations and deductions and additional job benefits, as well as preparation of the federal 1040 EZ. Corporate simulations such as the Stock Market Game and National Endowment for Financial Education (NEFE) put additional real-world financial management decision in students’ hands.

Work Based Learning (WBL)_Students leave school campus to work and apply job skills they have learned in previous business/technical classes as well as those being taken concurrently with their co-op job placement.

Work based Learning CTE (Co-Op) -- *All Academies*

Recommended prerequisites:

1. Student must be classified as seniors (17 Credits) and have completed or be currently enrolled in a State-Approved CTE Program.
2. Student must be enrolled in a DPS or HFC course aligned to their Educational Development Plan (EDP) and their CTE Program of Study during the Co-Op.
3. The Co-op job (WBL) training site must offer opportunities for training and experiences leading to a future trade or career that the student is considering pursuing.
4. Released time for Co-op (WBL) is granted from school, either a.m. or p.m..
5. A student may receive one-half credit hour per semester and for up to three hours for WBL (CTE).

Work Based Learning (Non-CTE) (Work Experience) *All Academies*

1. 12th grade students who have successfully completed business/technical preparation classes as listed before in Co-op.
2. Students take a class providing training that relates to the co-op position concurrently (during) the same semester with the co-op placement, e.g., Advanced Microsoft Office, Accounting 1,2, Accounting 3,4, Cisco 1,2, Interior Design 2, Child Development, Tailoring, Fashion Design, Food for Life, Auto Engine Electronic Systems 3, Auto Engine Performance Service, Advanced Auto, Tech Systems 2, Advanced Woods.
3. Released time for Work Experience (WBL Non CTE) is granted from school, either a.m. or p.m..
4. Students need to be employed in a position that aligns with their career pathway in their school records EDP.
5. The Work Experience (WBL Non CTE) training site must offer opportunities for training and experiences leading to future trade or career the student is considering pursuing.
6. A student may receive one-half credit hour per semester and for up to two hours.

CONSTRUCTION TRADES PROGRAM

Housed at MBCC but taught in the Home High Schools

GEOMETRY IN CONSTRUCTION *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course is taught at each high school. Students will be enrolled in a matching section of *Geometry C*. Students will be introduced to problem solving, machine and tool use, safety, drawing interpretation, and basic building techniques in relation to the construction and building trades. Students will be exposed to and exploit the interdependence between algebra and geometry. The integration of math and construction will strengthen student's math skills applying theoretical math concepts to practical building projects. The course will continue emphasizing student problem solving, math integration, machine and tool use, and safety. Students will also be exposed to elements of green building technology, heavy equipment, civil engineering, and advanced construction business management techniques. Student learning will also be extended through the introduction of advanced building techniques, culminating in an advanced project build. Students are encouraged to join and compete in SkillsUSA. (Prerequisite: *Wood Tech 1, 2*)

PENDING APPROVAL - GEOMETRY C *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course is taught at each high school. Students will be enrolled in a matching section of *Geometry in Construction*. Students will apply their knowledge of Geometry (including Algebra II SAT Prep Materials) in the Construction Lab. Geometry students examine the properties of 2- and 3-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions, are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedra and other solids.

WOOD TECH 1 *Academy of Industry, Technology & Innovation*

This one-semester, one-hour block course is taught at each high school. Wood Technology 1 is an introduction to materials, tools, machines and the procedures involved in the processing of materials used in industrial technology. Employment, safety procedures, measurement, design, hand tool usage, basic machinery, finishing and environmental concerns will be the focus of the course. Course instruction will center on materials and processes involved in product design and product manufacturing. Students will master trade-specific math skills as well as complete and exploration of career opportunities in the skilled trades. Students are encouraged to join and compete in SkillsUSA.

WOOD TECH 2 *Academy of Industry, Technology & Innovation*

This one-semester, one-hour block course is taught at each high school. Wood Technology 2 will emphasize occupations, safety, hand tools, hand power tools, machines, design, problem solving and environmental concerns. Exercises in gross and fine motor skills will be performed as projects become more challenging. Students will solve math and geometry problems. Science topics will be covered as they relate to material processing. Students are encouraged to join and compete in SkillsUSA.

CRIMINAL JUSTICE AND LAW CAREERS PROGRAM (MBCC)

CRIM JUSTICE I: PUBLIC SAFETY & LAW CAREERS *Academy of Human Services*

This one-semester, two-hour block course is designed to introduce students to the various careers in Criminal Justice and the law. This course focuses on the organization and structure of the Criminal Justice system with emphasis on the role of each organization and the education, skills and licenses required for various jobs/careers in each field. The course includes visits from professionals working in each of these systems, as well as field trips to HFC, UMD, DPD, District Court and other local Criminal Justice agencies. Students should exit the course with a well-developed Educational Development Plan (EDP) detailing the courses/programs/certifications they need to complete before graduation and a plan for post-secondary training. Students are encouraged to join and compete in SkillsUSA.

CRIM JUSTICE I: TOOLS & TECHNIQUES *Academy of Human Services*

This one-semester, two-hour block course provides students with an introduction to the law and personal ethics, as well as hands-on training in the tools, techniques and technologies used in the Criminal Justice system. Both traditional (writing, test, etc.) and performance based (demonstration of skills) assessment will be used to evaluate students. Students are encouraged to join and compete in SkillsUSA.

(Prerequisite: *Criminal Justice I: Public Safety & Law Careers*)

CRIM JUSTICE II: LAWS & ETHICS *Academy of Human Services*

In this one-semester, two-hour block course students will explore the law and its impact on the public in relation to their chosen career field. Significant emphasis is placed on public relations and effective communications. Students will also continue to develop industry-specific knowledge, skills and career awareness. Students are encouraged to join and compete in SkillsUSA.

(Prerequisite: *Criminal Justice I: Public Safety & Law Careers* and *Criminal Justice I: Tools & Techniques*)

CRIM JUSTICE II: INVESTIGATIONS & REPORTING *Academy of Human Services*

This one-semester, two-hour block course focuses on the individual and team skills needed to conduct forensic investigations, record results and prepare/present a final report. Leadership and teamwork skills are emphasized. Students are encouraged to join and compete in SkillsUSA.

(Prerequisite: *Criminal Justice I: Public Safety & Law Careers*, *Criminal Justice I: Tools & Techniques*, *Criminal Justice II: Laws & Ethics*)

FORENSIC SCIENCE 1, 2 (MBCC/DCMST) *Academy of Human Services*

Recommended elective for students in Criminal Justice. This is a lab-based class offered to students who have successfully completed two years of science. Students must understand and practice proper laboratory techniques. First semester course work will include an overview of forensic science, crime scene investigation, fingerprint analysis, document analysis, blood analysis, hair and fiber analysis, and ballistics. Students will also be required to do research and prepare a powerpoint presentation on a career in forensic science. Second semester course work will include an overview of the crime lab, glass analysis, impressions and prints, DNA, toxicology, anthropology, entomology, soil analysis, explosives and arson, and death and decomposition. Students will also be required to do research and prepare a powerpoint presentation on a high profile criminal case that was solved using forensic science techniques learned in class.

CULINARY ARTS/HOSPITALITY PROGRAM (MBCC)

HOSPITALITY STUDIES I *Academy of Industry, Technology & Innovation*

This full-year, two-hour block course provides an industry – driven curriculum that prepares students for a career in the restaurant & food service management. The curriculum provides the skills necessary to help prepare you to work in the hospitality industry including: basic food service skills & functions; full-service brigade; restaurant operations; catering services & bakery; communication & math skills health & safety practices. Students will assist with all aspects of the operation of a student-run restaurant, as well as various special project and catering events. Students may earn their *ServSafe Safe Food Handler* certificate. Students are encouraged to join and compete in SkillsUSA.

HOSPITALITY STUDIES II (Two Hour Block) *Academy of Industry, Technology & Innovation*

This full-year course focuses on the management and operation a full service restaurant/catering operation while continuing to hone student's culinary and customer service skills. Management of first year students, budgeting, menu development and promotion are emphasized . Students may earn their *ServSafe Safe Manager* certificate. Students are encouraged to join and compete in SkillsUSA.

(Prerequisite: Students must successfully pass *Hospitality Studies I* with a grade of "C" or better)

HOSPITALITY STUDIES II (three Hour Block) *Academy of Industry, Technology & Innovation*

This full-year course focuses on the management and operation a full service restaurant/catering operation while continuing to hone student's culinary and customer service skills. Management of first year students, budgeting, menu development and promotion are emphasized . Students may earn their *ServSafe Safe Manager* certificate. Students are encouraged to join and compete in SkillsUSA.

(Prerequisite: Students must successfully pass *Hospitality Studies I* with a grade of "C" or better)

DEARBORN BUSINESS ACADEMY PROGRAM (MBCC)

ACCOUNTING 1 *Academy of Business and Hospitality*

In this one-semester, one-hour block course students will analyze, classify, and record business transactions for a service business using the double-entry accounting system in a manual and computerized setting. Emphasis is placed on applying general accounting procedures, utilization of the accounting equation, preparing bank and petty cash reconciliations, journalizing adjusting and closing entries, and completion of the accounting cycle. Coverage includes the recording of basic transactions and adjustments for service businesses. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions. Course may count as a math course if taken during senior year.

ACCOUNTING 2 *Academy of Business and Hospitality*

In this one-semester, one-hour block course students will analyze, classify, and record business transactions for a merchandising business using special journals in a manual and computerized setting. Emphasis is placed on preparation of payroll records, accounting for payroll and payroll taxes, accounting for uncollectible accounts, preparation of adjusting entries, closing entries, and financial statements for a merchandising business. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions. Course may count as a math course if taken during senior year
(Prerequisite: Accounting 1)

ACCOUNTING 3 *Academy of Business and Hospitality*

In this is one-semester, one-hour block course students will review basic financial accounting principles covering the accounting cycle. Topics include: cash, investments, receivables and payables, inventory valuation, fixed and intangible assets valuation, current and long term liabilities, and owner's equity. Internal control and financial statement analysis is also considered. Emphasis is placed on the corporate form of ownership. Students will also complete an accounting simulation to reinforce the covered material. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions. Course may count as a math course if taken during senior year.
(Prerequisites: Accounting 1, 2)

ACCOUNTING 4 *Academy of Business and Hospitality*

This is a one-semester, one-hour block course places emphasis on the preparation, analysis, and interpretation of financial statements, the treatment of tangible and intangible assets, accounting for accruals and deferrals, and financing options for acquiring capital for growth and development are explored. Various supplemental accounting projects involving the use of spreadsheets will be assigned. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions. Course may count as a math course if taken during senior year
(Prerequisite: Accounting 1, 2, 3)

BUSINESS TECHNOLOGY & MANAGEMENT 1 *Academy of Business and Hospitality*

This is one-semester, one-hour block course will help prepare students for successful use of technology and business management concepts throughout high school, as well as in college and/or career. Students will develop and expand the 21st Century skills necessary for future success in the workforce. These skills include communication, problem solving, critical thinking, leadership, teamwork, and employability. Students will also be expected to demonstrate the use of the Internet for educational and professional purposes. Students will regularly use electronic means to communicate. In addition, use of word processing, presentation, and spreadsheet software will be expected. Students will improve their computer skills to increase their knowledge, use, and productivity. The course includes an introduction to the world of management, ethics and legal training along with a look at International business. Students will have the opportunity to earn Microsoft Office Specialist (MOS+) certificates in Word, Excel and Powerpoint. Approved for Computer Applications. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions.

BUSINESS TECHNOLOGY & MANAGEMENT 2 *Academy of Business and Hospitality*

This one-semester, one-hour block course will build upon the skills obtained and focus on business planning, operations management/project management, human resources, economics, entrepreneurship, and financial analysis. Students will complete many projects that bring back knowledge learned throughout the first semester including resumes, cover letters, and a digital portfolio. Students will also get a chance to earn more Microsoft Certifications and Precision Exam Certificates. Approved for Computer Applications. Students may participate in Business Professionals of America (BPA) or Distributive Education Clubs of America (DECA) Competitions.

(Prerequisite: *Business Technology & Management 1*)

ENTREPRENEURSHIP 1 & 2 *Academy of Business and Hospitality*

This full-year, one-hour block course will allow students to gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system. Entrepreneurship is designed for students with a focus in business, finance, or marketing, and/or other courses, who have an interest in developing the skills, attitudes, and knowledge necessary to become a successful entrepreneur.

(Prerequisite: Students must complete *Business Technology & Management 1 and 2* with a grade of "C" or better)

INTRO MARKETING *Academy of Business and Hospitality*

This one-semester, one-hour block course prepares the student for entry level careers in retail marketing. Students complete competencies in merchandising, sales promotion, store operations, finance and inventory control, human resources and functions of retail marketing. Students also learn employability skills that enable them to find jobs in the retail marketing industry. Communication skills are also developed. This course is aligned with the State's Marketing curriculum. Students will be encouraged to be a member and compete using their learned skills in DECA, the State-recognized marketing organization.

MARKETING MANAGEMENT *Academy of Business and Hospitality*

This one-semester, one-hour block course is designed for the student who has a previous course in Marketing Education. This course will give the students an understanding of the many entrepreneurial activities involved in the successful operation of a business, an appreciation of the importance of businesses in our economy and assist the students in deciding on specific career objectives in the business world. Students will develop a working business plan throughout the semester for a business they have researched. The final outcome of the business plan is a presentation to a bank loan officer. This course is aligned with the State's Marketing curriculum. Students will be encouraged to be a member and compete using their learned skills in DECA, the State-recognized business organization.

(Prerequisite: *Intro Marketing*)

SCHOOL STORE *Academy of Business and Hospitality*

This one-semester, one-hour block course may be taken twice to create a year-long sequence. This course is designed to give the student a practical as well as educational approach to distribution showing its contributions to our modern society. This course will also provide the student with first-hand knowledge of labor and management responsibilities resulting from operating their own store. The store business will be conducted based upon sound principles of management. This course will be run as a project lab. This course is aligned with the State's Marketing. Students will be encouraged to be a member and compete using their learned skills in DECA, the State-recognized marketing organization.

(Prerequisites: Students must complete *Intro Marketing* and *Marketing Management* with grade of "C" or better)

SOCIAL MEDIA MARKETING *Academy of Business and Hospitality*

This one-semester, one-hour block course uses *Stukent* curriculum materials and the *Mimic Social* computer simulation to give students practical, "hands on" experience running a social media advertising campaign for a hypothetical company. Students will explore various media platforms and evaluate results using analytics, feedback and sales reports. Target audiences, budget concerns, ethics and responsibilities will be covered. Students will be encouraged to be a member and compete using their learned skills in DECA, the State-recognized marketing organization.

(Prerequisites: Students must complete *Intro Marketing* and *Marketing Management* with grade of "C" or better)

DEARBORN CENTER FOR MATH, SCIENCE & TECHNOLOGY

ACCELERATED PRE CALC (11th Grade)

This course is designed so that students will complete the Precalculus curriculum by the end of December so that students can begin Calculus (either by taking College Calculus 1 or Calculus Foundations) in January. This course covers limits, increasing and decreasing functions, rational functions, solving and graphing equations and inequalities, advanced trigonometry, parametric and polar equations, and vectors. Students will be assessed via tests, quizzes, and writing assignments. There is no final exam for this course due to its accelerated nature

ANATOMY AND PHYSIOLOGY (11th or 12th Grade)

Anatomy and Physiology is a laboratory-based course that investigates the structure and function of the human body. Topics covered will include the basic organization of the body and major body systems (integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, respiratory, digestive, and reproductive). The impact of aging and diseases on body systems will also be studied. The full-year course culminates with the dissection of a fetal pig.

AP CALCULUS BC (11th or 12th Grade)

AP Calculus BC is primarily concerned with developing the student's understanding of the concepts of calculus and providing experience with these methods and applications. The courses emphasize a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Technology will be used regularly to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. Through the use of unifying themes of derivatives, integrals, limits, approximation, and applications and modeling, the course becomes a cohesive whole rather than a collection of unrelated topics. More information about the course can be found at the following website: <https://apstudent.collegeboard.org/apcourse/ap-calculus-bc>

AP COMPUTER SCIENCE A (11th or 12th Grade)

AP Computer Science is an introductory course in computer science. . Because the development of computer programs to solve problems is a skill fundamental to the study of computer science, a large part of the course is built around the development of computer programs or parts of programs that correctly solve a given problem. The course also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course. More information about the course can be found at the following website: <https://apstudent.collegeboard.org/apcourse/ap-computer-science-a>

AP COMPUTER SCIENCE PRINCIPLES (9th Grade)

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Students can earn college credit if they do well on their projects and the AP exam at the end of the course. More information can be found at <https://apstudent.collegeboard.org/apcourse/ap-computer-science-principles>.

AP ENVIRONMENTAL SCIENCE (11th or 12th Grade)

The AP Environmental Science course will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. It is a rigorous and highly interdisciplinary course that as it integrates the natural sciences, social sciences, and humanities to the study of environmental systems. The goal of this course is 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. The course will cover areas of environmental testing, sustainability, and resource management. Students will be expected to participate in group projects, case studies, lab work, and hands-on activities that relate to different aspects of environmental science. This rigorous Advanced Placement course will require a commitment of both time and interest. More information about the course can be found at the following website: <https://apstudent.collegeboard.org/apcourse/ap-environmental-science>

AP RESEARCH (11th or 12th Grade)

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan and conduct a year-long research-based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. AP Research is the second of two courses in the AP Capstone™ program. AP Seminar is the first course. If a student earns scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing, they will receive the AP Capstone Diploma™. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, if a student earns scores of 3 or higher in AP Seminar and AP Research only, they will receive the AP Seminar and Research Certificate™. More information about the course can be found at the following website: <https://apstudent.collegeboard.org/apcourse/ap-research>

AP SEMINAR (10th Grade)

AP Seminar is a foundational course where students investigate real-world topics of their choosing as well as learn to collect, analyze, and synthesize information from multiple sources. Students engage in conversations about complex academic and real-world issues from divergent perspectives. AP Seminar is the first of two courses in the AP Capstone™ program. AP Research is the second course. If a student earns scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing, they will receive the AP Capstone Diploma™. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, if a student earns scores of 3 or higher in AP Seminar and AP Research only, they will receive the AP Seminar and Research Certificate™. More information about this course can be found at <https://apstudent.collegeboard.org/apcourse/ap-seminar>.

AP STATISTICS (11th or 12th Grade)

AP Statistics is a full year course that is designed to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad themes: Exploring Data (Describing patterns and departures from patterns), Sampling and Experimentation (Planning and conducting a study), Anticipating Patterns (Exploring random phenomena using probability and simulation), and Statistical Inference (Estimating population parameters and testing hypotheses). Students will be expected to use Graphing Calculators on a daily basis. Students who successfully complete the course and perform well on the AP exam may receive college credit, advanced placement or both for a one-semester introductory college statistics course. More information about the course can be found at the following website: <https://apstudent.collegeboard.org/apcourse/ap-statistics>

CALCULUS FOUNDATIONS (11th Grade)

Calculus Foundations is designed to introduce students to Calculus topics at a more conservative pace. Rather than taking the entire Calculus I course in a semester, we cover approximately the first half of Calculus I, making the transition to AP Calculus BC or Calculus I at the college much easier. Students will learn topics such as limits, derivatives, related rates, and antiderivatives

DISCRETE MATH (11th or 12th Grade)

The purpose of this course is to understand and use (abstract) discrete structures that are the backbone of computer science. In particular, this class is meant to introduce logic, proofs, sets, relations, functions, counting, and probability, with an emphasis on applications in computer science

EPIDEMIOLOGY & PUBLIC HEALTH (11th or 12th Grade)

The course mainly focuses on the basic principles and methods of epidemiology, with an emphasis on critical thinking, analytical skills, and application to clinical practice and research. Course Competencies: Evaluate the quality and comparability of data. Understand the major study designs for obtaining quantitative information relevant to population health research questions, including surveillance, observational, community-based and controlled trial research studies. Be able to select the most appropriate design for different hypotheses. Define exposure variables, outcome variables, extraneous variables and measures of their frequency. Understand and calculate commonly used health measures, such as relative risk, attributable risk, and odds ratio; select appropriate methods for estimating such measures. Define appropriate comparison groups for epidemiologic studies. Apply the concepts of confounding and bias to describe variables; describe appropriate methods for addressing each. Critique the study design and quantitative methods used in published literature and appropriately interpret the findings. Identify key sources of epidemiologic data. Describe a public health problem in terms of magnitude, person, time and place. Formulate and apply an epidemiologic methodology to identify a specific public health problem, develop a hypothesis, and design a study to investigate the issue.

FORENSIC SCIENCE (11th or 12th Grade)

Forensic Science is a one-semester integrated science course covering topics in Biology, Chemistry, and Physics. In this course, we will focus on forensic techniques used by scientists and law enforcement officials to observe, collect, and analyze data that may be used to solve a crime. Topics of study include fingerprints, DNA, blood, etc. Students will analyze a mock crime scene by gathering and collecting evidence in order to solve the crime. Additionally, students will learn what is and isn't possible through critical analysis of forensic techniques utilized in current TV shows.

GENETICS (11th or 12th Grade)

This one-semester course will introduce students to the fundamental concepts of Genetics with emphasis on Human Heredity. Topics will include the history of genetics, genes and chromosomes, nucleic acids and proteins, approaches to the study of genetics, and the impact of genetics on society. Students will be introduced to basic lab techniques and learn about current issues in genetics.

HONORS BIOLOGY (10h Grade)

This full-year course covers ecology, biochemistry, cells, homeostasis, energy transformation, cell division, DNA replication & protein synthesis, genetics, and evolution & biodiversity. Students are expected to actively participate in many types of activities ranging from online webquests to hands-on labs. This is a fast-paced, in-depth course that will prepare students for AP Biology.

HONORS CHEMISTRY (9th Grade)

The Honors Chemistry course at DCMST exists to provide academically strong and motivated students with opportunities to enhance and enrich their education. The course challenges students to think and create at the highest levels of their abilities and encourages them to excel as they work to realize their potential. Higher standards are defined as an accelerated pace and greater depth. Students enrolled in the course are expected to develop refined and advanced critical thinking skills and apply those skills in examinations, presentations, labs and projects. Honors Chemistry at DCMST is a rigorous introductory level science course. Due to the heavy math component in this course our students are expected to excel in algebra and mathematical problem solving. Topics include the metric system, matter, formulas, chemical equations (reactions) atomic structure, Stoichiometry, thermochemistry, gasses and their laws, solutions, bonding, acid base theory, pH, and organic Chemistry. We emphasize understanding and not memorizing material. This course is a college and an AP Chemistry prep course and its rigors will reflect a movement toward college level work. In addition a goal of this course is to help prepare students for the SAT chemistry subject exam.

HONORS INTEGRATED MATHEMATICS 2 (9th Grade)

In this class, students will cover a variety of math topics that span topics from Algebra II and Precalculus. Topics include: Domain & Range, Linear and Quadratic Functions, Systems of Equations, Sequences, Power & Exponential Functions, Composites, Matrices, Polynomials, Rational Functions, Series, Inverses, Logarithms, Trigonometry, and Family of Functions. In addition to quizzes and tests students will often be assessed via group labs and projects where they will be expected to use various technology including Google Drive and TI Nspire Graphing Calculators.

HONORS INTEGRATED MATHEMATICS 3 (10th Grade)

The content of this course integrates the topics of geometry, functions, statistics and trigonometry. The focus of Semester 1 is on geometry and introductory trigonometric concepts. The focus of semester 2 is on circular models, trigonometry, probability, and statistics. Students will apply these concepts to problem solve a variety of mathematical, scientific and technological situations. Technology will be emphasized throughout the course for work with graphing, analyzing data and simulating experiments. Rather than taking a final exam at the end of each semester, this class is broken up into trimesters. A final exam will be taken after each of the following topics are studied: Geometry, Trigonometry, and Probability/Statistics (this one will be a final project).

HONORS PHYSICS (11th Grade)

The principles of physics, including units on mechanics, sound, electricity, magnetism and modern physics. This course is designed to prepare students for the college-level physics which is required in engineering, pre-medicine, pre-dentistry, teaching, and computer science. Note that this course goes above and beyond the State of Michigan's High School Content Expectations. Vectors and trigonometry are used as analytical tools. Numbers are expressed with significant figures. Scientific literacy and symbolic expression of concepts will be emphasized

INTRODUCTION TO MATH THINKING (11th or 12th Grade)

Introduction to Mathematical Thinking transforms mathematics into an engaging, relevant experience. Students are introduced to important and interesting ideas in mathematics that go beyond what is taught in a normal mathematics classroom while inspiring them to actively engage in mathematical thinking. Topics include topics such as counting infinite sets of numbers, cryptography, Geometrical correspondences, Non-Euclidean geometries, and Julia and Mandelbrot Sets.

STEM ELECTIVE OPTIONS FOR DCMST (11th or 12th Grade)

Students may substitute *pre-approved* Math, Science and Technology (STEM) courses including MBCC, Collegiate Academy, Dual Enrollment and home high school course offerings

TOPICS IN CHEMISTRY (11th or 12th Grade)

Topics in Chemistry is a one-semester, laboratory-based course in Advanced Chemistry topics including chemical reactions, polymers, and organic chemistry. Students will make a crystal heart for Valentine's Day, learn the history of soap-making and make their own, and even make ice cream!

FAMILY & CONSUMER SCIENCE COURSES

CLOTHING 1 (FHS) *Academy of Industry, Technology and Innovation*

Students will learn about textiles and how basic sewing techniques including fabric recognition, fabric care, pattern reading, pattern making, hand sewing, embroidering, and early sets in using a digital sewing machine. Projects include but are not limited to: pillows, pajama pants, pencil pouch,

CLOTHING 2 (FHS) *Academy of Industry, Technology and Innovation*

Students will examine clothing production in the areas of preparation for clothing construction, basic clothing construction techniques, consumer decisions, and career opportunities. Emphasis is placed on students applying these construction and design skills to apparel and home fashion. Skills in art, communication, mathematics, science, and technology are reinforced in this course. Three projects are chosen by the students and their interests.

CONFIDENT CONSUMER *All Academies*

The Confident Consumer is a one semester course that fulfills the Michigan Merit Curriculum Senior Year Math course requirement. The class will operate on a token economy system where students must pay for everything (a pass, turning in homework, taking a test) and students will receive payment for doing their job as a student (coming to class on time, coming prepared, doing excellent work, contributing to class discussion, high test scores, etc). The units of study would include understanding our economy and how it works, consumer rights, career choices, managing your money, budgeting, credit, banking, shopping skills, income and taxes. The student will learn how to save for security by making wise investments. In addition to these topics of study, students would complete a household money management simulation.

FOOD FOR LIFE *Academy of Business and Hospitality*

Foods for Life will introduce students to more complex cooking skills that build on the skills that they have learned in the previous semester. The student will study fad diets and trends and the roles in which diet plays on their lifelong health. During the Foods for Life class students will see how their culture is similar to others by researching what humans have eaten for centuries and how we are truly a global community through our foods and culture. Prerequisite Fundamental Foods or at the discretion of the teacher.

FUNDAMENTAL FOODS *Academy of Business and Hospitality*

Fundamental Foods will introduce students to the safety and sanitation aspects of home and small business food service preparations. The student will be immersed in techniques and skills that will improve their speed and understanding of basic meal preparations and nutritional planning. They will also evaluate the cost of food in our society based on dietary restrictions and needs. The students will have the opportunity to prepare foods in a lab setting with supervision and will be given the chance to work on a business event during the semester by producing a food product sold as a fundraiser. Students will investigate the career opportunities that are in the food service industry.

INTERIOR DESIGN (FHS) *Academy of Industry, Technology and Innovation*

This course enables students to explore art in the field of interior design. Design and Presentation methods, Identification and application of the elements and principles of design are emphasized throughout. Also included is an introduction to housing floor plans, blueprint symbols, and furniture arrangement. Students will compile all of these concepts into a Dream House Final Presentation board.

GENERAL ELECTIVES COURSES

CAREER EXPLORATION *All Academies*

Career Exploration is a one semester course designed to teach students the comprehensive career planning process. This learning experience is designed to assist the student in selecting a college major and developing career options. This course will help students to identify talents, interests, personality and skills so that they can match them with future career pursuits. Students will identify methods to help attain educational, training and career goals. They will research educational opportunities relevant to career interests and investigate the skills and knowledge necessary to be successful in the workplace. Additionally students will practice the educational and job search skills required for implementation of their career path.

DUAL ENROLLMENT *All Academies*

This is a State of Michigan program which allows 11th and 12th grade students to enroll in college classes at local institutions (generally, Henry Ford Community College and University of Michigan – Dearborn). Dual Enrollment guidelines require completion of the Plan, PSAT and/or MME (Michigan Merit Exam) to qualify for dual enrollment. Students can earn both high school credit and college credit for successful completion of the dual enrollment classes. However, these Dual Enrollment credits may not transfer to all major universities.

FRESHMAN FOUNDATIONS

This one semester course is designed for freshman students who want to maximize their potential in high school! Students who want to be more successful academically and prepare themselves better for college should take this class. Students will explore their personal learning styles, learn to be organized and manage their time, study more effectively, earn high test and quiz grades, relate better with the upperclassmen, manage their individual stress, define their educational goals, conduct productive research, take useful notes, become confident public speakers, read faster and comprehend more.

YEARBOOK *All Academies*

This course is primarily a student-operated, advisor-directed production class. Students design and produce the school annual (yearbook). Students learn various skills of design, layout, copywriting, editing, graphic art skills, desktop publishing, digital and 35mm photography, sales, product promotion, accounting, advertising, budgeting and inventory. Students should have a working knowledge of computers, have a strong sense of time commitment and be able to work both independently and in group projects. Open to 11-12th grade only with written approval of instructor.

INDUSTRIAL ARTS COURSES

AUTO TECH 1, 2 *Academy of Industry, Technology and Innovation*

Automotive 1 is designed to introduce the student to the technology, safety, system and careers related to the engine and the automobile. Stressing theory and knowledge through readings and research this course is a required prerequisite to the other automotive courses.

Automotive 2 reinforces the knowledge acquired in Automotive Technology 1. Students have the opportunity to practice basic vehicle inspection and areas such as the electrical service and the servicing of the cooling system. (Recommended prerequisite: Automotive Technology 1)

AUTO ENGINE ELECTRONICS 3 *Academy of Industry, Technology and Innovation*

This course will provide the student with advanced knowledge about vehicle electrical systems. Students will also gain experience diagnosing electrical system problems. Emphasis is placed on job level skill development and to assist the student in developing the ability to take the State of Michigan Auto mechanics Certification Test for automobile electrical repair. The duration of this course is two hours per day for one semester. (Recommended prerequisite: Auto 1-2)

AUTOMOTIVE ENGINE PERFORMANCE 4 *Academy of Industry, Technology and Innovation*

This course provides the student with the opportunity to develop the knowledge and skills to diagnose and service major internal engine performance problems including engine repair and diagnostics. Emphasis is also placed on developing the ability to take the State of Michigan Engine performance Certification Test. The duration of this course is two hours per day for one semester. (Recommended prerequisite: Auto 1-2)

AUTO BRAKES / STEERING TECH 5 *Academy of Industry, Technology and Innovation*

This course provides the student with the opportunity to develop the knowledge and skills to diagnose and service brake and suspension systems on passenger cars and light trucks. Emphasis is placed on job level skill development. This course will assist the student in developing the ability to take the State of Michigan Brakes and Suspension Mechanic Certification tests. The duration of this course is two hours per day for one semester. (Recommended prerequisite: Auto 1-4)

ADV AUTOMOTIVE SERVICE 6 *Academy of Industry, Technology and Innovation*

This course provides the student with the opportunity to develop hands-on experience simulating real-world employment in an automotive technology service facility. Employability skills as well as technical skills are emphasized. Diagnosis of drivability problems and review of instruction from previous courses are included. The duration of this course is two hours per day for one semester. (Recommended prerequisite: Auto 1-5)

HOME TECHNOLOGY 1 (FHS) *Academy of Industry, Technology and Innovation*

In the Home Technology courses (I&II), students will be introduced to how homes are designed, constructed, maintained and renovated. This is a hands-on program that will include but is not limited to the following:

- design and construction of small models
- wiring of simple 120V electrical circuits
- repair/installation of plumbing systems
- installation of ceramic tile
- concrete work
- interior finishing of a home
- Math skills, including measuring, are emphasized throughout the course.

HOME TECHNOLOGY 2 (FHS) *Academy of Industry, Technology and Innovation*

Students in Home Technology 2 will continue to improve their construction and home building skills and knowledge. Topics that will be further explored in detail and depth include: (But, not limited too.)

- design and construction of small models
- wiring of simple 120V electrical circuits
- repair/installation of plumbing systems
- installation of ceramic tile
- concrete work
- interior finishing of a home
- Math skills, including measuring, are emphasized throughout the course.

WELDING TECH I *Academy of Industry, Technology & Innovation*

The program is designed to prepare students for entry-level welding occupations. Students learn basic and advanced techniques in oxyacetylene, gas metal, shielded metal, and tungsten arc welding processes. Fabrication, brazing, cutting of metal products and blueprint reading are also taught. Proper workplace attitudes and behaviors are also practiced.

WELDING TECH 2 *Academy of Industry, Technology & Innovation*

Students are expected to take a leadership role among his/her peers while improving/completing performance objectives on all equipment and all of the welding processes. Students will learn all position welding, fabrication, and job welding. Students will be involved in welding competitions with students from other schools. Competitions may lead to awards, prizes, certificates and/or employment. Students who successfully complete this program may earn college credits through articulation agreements

WOOD TECH 1 *Academy of Industry, Technology & Innovation*

This one-semester, one-hour block course is taught at each high school. Wood Technology 1 is an introduction to materials, tools, machines and the procedures involved in the processing of materials used in industrial technology. Employment, safety procedures, measurement, design, hand tool usage, basic machinery, finishing and environmental concerns will be the focus of the course. Course instruction will center on materials and processes involved in product design and product manufacturing. Students will master trade-specific math skills as well as complete and exploration of career opportunities in the skilled trades. Students are encouraged to join and compete in SkillsUSA.

WOOD TECH 2 *Academy of Industry, Technology & Innovation*

This one-semester, one-hour block course is taught at each high school. Wood Technology 2 will emphasize occupations, safety, hand tools, hand power tools, machines, design, problem solving and environmental concerns. Exercises in gross and fine motor skills will be performed as projects become more challenging. Students will solve math and geometry problems. Science topics will be covered as they relate to material processing. Students are encouraged to join and compete in SkillsUSA.

WOOD TECH 3 CABINET MAKING *Academy of Industry, Technology and Innovation*

Wood Technology 3 Cabinetmaking and Casework is an advanced class for students serious about woodworking as either a career, or to gain experience and skills for home improvement projects. The main focus of the course is the design, construction, finishing and installation of cabinetry and casework. The course will cover employment, safety, blueprint reading, heavy machine operation, laminating, and new product technology. (Recommended prerequisite: Wood Tech 1-2)

WOOD TECH 4 /ADV WOOD TECH *Academy of Industry, Technology and Innovation*

Wood Technology 4 is a course emphasizing product design and marketing. The main focus of the course is the designing, planning, manufacturing and marketing of a functional product. Student will use prior skills in developing and constructing a useful product combined with marketing strategies to help sell the product. The student will work in small groups making individual parts and as a large group for assembly.

WOOD TECH 5/ADV CABINET (EFHS) *Academy of Industry, Technology and Innovation*

Wood Technology 5 is an advanced course for the serious woodworking student interested in cabinetmaking and furniture design and construction. This course may run for either one or two hours, depending on the student's schedule. Students are required to design and construct a project or projects containing drawers, doors, advanced Joinery techniques and advanced finishing procedures.

WOOD TECH 5/ADV CABINET (EFHS) *Academy of Industry, Technology and Innovation*

Wood Technology 6 is an advanced course for the serious woodworking student interested in cabinetmaking and furniture design and construction. This course may run for either one or two hours, depending on the student's schedule. Students are required to design and construct a project or projects containing drawers, doors, advanced Joinery techniques and advanced finishing procedures.

INFORMATION TECHNOLOGY PROGRAM (MBCC)

AP COMPUTER SCIENCE PRINCIPLES *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze a study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

(Prerequisite: *Computer Science Discoveries*)

AP COMPUTER SCIENCE A *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.

(Prerequisite: *Computer Science Discoveries*)

COMPUTER SCIENCE DISCOVERIES *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course takes a wide lens on computer science by covering topics such as programming, physical computing, HTML/CSS, and data. Students engage with computer science as a medium for creativity, communication, problem solving, and fun. The course inspires students as they build their own websites, apps, games, and physical computing devices.

DESIGN CONCEPTS 2D *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course focuses on students' digital drawing & illustration skills including: design composition, color theory, graphic design, web & animation, advertising and communication design, using Adobe Photoshop, Illustrator and Flash. Students may earn their *Adobe Certified Expert (ACE)* certification in these programs. Students will also be introduced to the basics of web design including planning, layout, style and standards. Approved for Computer Applications Credit. Students will compete in Business Professionals of America (BPA). (Should be taken concurrently with Design Concepts 3D to create a 2-hour block)

DESIGN CONCEPTS 3D *Academy of Industry, Technology & Innovation*

This full-year, one-hour block course focuses on students' 3-D drawing, rendering & illustration skills including: design process, 3D aesthetics & sculpture design, 3D modeling and product design using Rhino 3D and Blender modeling software. Students may earn a variety of industry certifications from *Precision Exams*. Students will also be introduced to the fundamentals of digital publishing including html, css and java-based coding. Approved for Computer Applications. Students will compete in Business Professionals of America (BPA). (Should be taken concurrently with Design Concepts 2D to create a 2-hour block)

DESIGN CONCEPTS II *Academy of Industry, Technology & Innovation*

This full-year, two-hour block course focuses on students' personal design career goals with In-depth, long term projects exploring historical styles, client-designer relationship, advanced design techniques, serial art, and development of the student's personal vision and style. Students will compete in Business Professionals of America (BPA). (Prerequisite: Students must complete *both* Design Concepts 2D and Design Concepts 3D with a grade of "C" or better)

SOFTWARE SPECIALIST I *Academy of Industry, Technology & Innovation*

This full-year, two-hour block course uses a variety of advanced software programs to create custom graphics, make professional web pages, create exciting animations, explore advanced 3D modeling while learning the basics of game design and other in-demand I.T. skills. Students will have the opportunity to earn one or more Microsoft Office Specialist (MOS+) and Microsoft Imagine Academy (MIA) Certificates. Students will compete in Business Professionals of America (BPA). Counts as Computer Applications for graduation.

SOFTWARE SPECIALIST II *Academy of Industry, Technology & Innovation*

This full-year, two-hour block course focuses on in-Depth, student initiated projects using and mastery of specific software packages. Emphasis on the design process, project management and customer service. Students will compete in Business Professionals of America (BPA). (Prerequisite: Students must complete *Software Specialist I* with a grade of "C" or better)

LANGUAGE ARTS COURSES

AP ENGLISH LANGUAGE / COMPOSITION *All Academies*

The AP course in English Language and Composition will assist students to become skilled readers of college level essays, narratives and prose written in a variety of periods, disciplines, and rhetorical contexts. This college level course will also give students the practice and helpful criticism necessary to make them flexible writers who can compose in a variety of modes and for a variety of purposes. Both their reading and their writing will make them aware of the interaction between authorial purpose, audience needs, the subject itself, generic conventions, and the resources of language: syntax, word choice and tone. Extensive writing assignments will be designed to make students mature writers who will be able to write competently at the college level and be successful on the AP Exam. The course will emphasize expository, analytical and argumentative essays inclusive of an extensive research paper. (Recommended prerequisite: B or better in Honors Language Arts 1-4 or recommendation of teacher)

AP ENGLISH LITERATURE / COMPOSITION *All Academies*

In this course, students will actively engage in the careful reading of advanced college level literary works. Through such study, students will sharpen their awareness of language and understanding of the writer's craft. Students will develop critical standards for the independent appreciation of literature and will increase sensitivity to literature as a shared experience. To achieve these goals, students will study the individual work, its language, characters, action and themes. They will consider its structure, meaning and value, and the relationship to contemporary experience as well as the times in which it was written. Students will be involved in both the study and practice of writing and the study of literature. They will learn to use the modes of discourse and recognize the assumptions underlying various rhetorical strategies. Through speaking, listening, reading and writing, students will become more aware of the resources of language: connotation, metaphor, irony, syntax and tone. Writing assignments will focus on the critical analysis of literature and will include essays in exposition and argumentation. The desired goals are the honest and effective use of language and the organization of ideas in a clear, coherent and persuasive manner. (Recommended prerequisite: B or better in AP English Language and Composition)

CREATIVE WRITING 1. 2 *All Academies*

These writing courses instruct students in the process of creating the literary forms of short story and poetry. Individual interest and talent will determine the writer's major area of concentration. Students will create a variety of writings based on personal journal entries and literary readings. Mechanics, vocabulary and syntax will be studied to enhance the creative process.

FILM STUDY 1 *All Academies*

This class will examine the history and development of film from the 1900's to the present. Study will include film style, social relevance, propaganda, entertainment and historical value, societal effect in relation to the dynamics of American cultural development. Students will research, critique, and analyze various film genres through class discussion, written and oral presentations, and various creative projects of differing focus. Readings will include materials pertaining to the various film presentations. Parents and students should be aware that PG and PG-13 films that have met the DHS administration's approval will be shown. Students who are not allowed to view these films should not take this course. The class will be offered as a general elective for Seniors and Juniors.

FILM STUDY 2 *All Academies*

This class is a continuation of Film Study 1 and will examine the history & development of film from 1940 to current date. In depth analysis, will include a research project and written presentation that examines the themes, cultural and historical relativity, profundity levels, media influence and the effects of the film industry upon personal and societal group behaviors. Class discussion, group and individual oral and written presentations will be assigned throughout the semester. Readings will include supplementary materials that correspond to the various film presentations. Parents and students should be aware that PG and PG-13 films that have met the DHS administration's approval will be shown. Students who are not allowed to view these films should not take this course. The class is offered as a general elective for Seniors and Juniors. (Prerequisite: Film Study 1)

LANGUAGE ARTS 1, 2

This required 9th grade course combines an introduction to the major literary genres of short story, poetry and drama with the study of basic writing skills of paragraph development and essay assessment. Writing assignments include personal and expressive writing, description, narration, exposition, persuasion, observation and reporting. Additionally, students keep a journal and are instructed in spelling, vocabulary, punctuation and grammar skills in a manner which integrates these skills with the writing process.

LANGUAGE ARTS 3, 4

This required 10th grade course emphasizes writing and reading skills. Students will learn the elements of essay writing in a variety of styles in response to literary selections. Writing and reading assignments will gain complexity in development and style in response to various classic novelists as well as a survey of short stories, poetry and drama. In addition to the anthology, 3 novels will be studied each semester and written assignments will analyze the elements of fiction, drama and expository writing. A research paper will be written and assessed.

LANGUAGE ARTS 5, 6

This required 11th grade course traces the development of American Literature from the 1600's to the 21st century. Study will include the Colonial, Revolutionary and Romantic Periods of American writings, essays and novels. Various styles, genres, opinions and ideas of American authors will be presented for class discussion, writing assignments and projects. Classical literature as well as correlating contemporary non-fiction writing will be studied in conjunction with historical relevance of socio-economic, political and artistic issues of the different eras. Students will actively engage in various written analyses, oral presentations and an extensive research paper in response to a variety of American Authors, poets, essayists and dramatists.

LANGUAGE ARTS 7, 8

This required 12th grade course is a comprehensive study of English/World literature from the Ancient, Medieval, Renaissance, Restoration and Romantic Periods to the beginning of the eighteenth century. Students will read various genres inclusive of drama, morality play, epic, poetry, essays and correlate the historic, social and cultural significance of the literature to the events, people, philosophy, rhetoric and ethos of the time period. Students will be required to write personal reflective, persuasive, synthesis, comparison/contrast and evaluative responses to the readings as well as commit investigative research with focus on critical examination, logical thought development and the necessary use of textual support of ideas. The course will emphasize the universality of cultural/social/interpersonal themes as they apply to today's world through investigative reading, discussion, research and writing.

HONORS LANGUAGE ARTS 1, 2

This year's program combines an in-depth broad scope study of short story, poetry, essay, drama and novels as well as practice in refining writing skills. Students will demonstrate written advanced vocabulary, syntax and stylistic variety by the introduction of forms of diction, rhetoric, logic and voice. Extensive writing assignments will include narrative, causal analysis, persuasion, comparative analysis and a variety of composition assignments inclusive of an extended research paper. Multiple themes, philosophical basis, historical/social implications and relevance will be presented through class discussion, oral presentations and group projects. Students will be responsible to complete numerous independent enrichment readings as well as class assigned novels. Critical thinking and independent working styles will be stressed for future enrollment in AP coursework. Students will be assessed and evaluated as to their writing and reading achievement. (Recommended prerequisite: Reading and writing above grade level as demonstrated by standardized test scores)

HONORS LANGUAGE ARTS 3, 4

This course provides the methodology and advanced skills necessary for future completion of AP Course work. Literature will include a broad range of authors of various genres and historical periods. Discussion and projects will examine and analyze not only literary elements and components but also correlate the relevance of historical literature to contemporary concerns, problems and events. Course preparation will include study of an anthology of selected short stories, poetry, drama and essays in addition to novels and independent enrichment reading of additional works that will be presented in both oral and written presentations. Written assignments will include extensive analysis of diction, rhetoric and logic while utilizing various styles of advanced vocabulary and voice. Students will be responsible for a portfolio of a minimum of 10 extended essays and one major research project utilizing numerous exposition styles and formats. Time management, independent work skills and critical thinking will be stressed as students are assessed as to their writing and reading achievement. (Recommended prerequisite: Reading and writing level above grade level as demonstrated by standardized test)

JOURNALISM 1 *All Academies*

This writing course introduces the basics of newspaper writing. Students will study the First Amendment, libel laws, journalism ethics, editing and publishing. Students will compose a wide variety of journalistic articles and learn the basic concepts of graphic newspaper design. Focus will include the study of style, vocabulary, grammar, mechanics and form. Students are encouraged to participate in the publication, The Observer.

JOURNALISM 2 *All Academies*

This course focuses on the publication of The Observer, the weekly school newspaper. While improving writing skills, students will also gain experience in the use of computer programs designed for newspaper and magazine publishing. Student journalists will have the opportunity to view school and community issues of concerns and formulate writings that present editorials, features, news, essays, political cartoons, reviews and critiques.

MYTHOLOGY AND EPIC (DHS) *All Academies*

Students will study the great epics and myths of Western Literature which have illuminated man's view of himself and his place in the universe. The course covers literary forms such as myth, epic, narrative, mock epic, and drama and works such as The Odyssey, The Iliad, The Legends of King Arthur, and Epic of Gilgamesh.

READ 180

This course is a comprehensive reading intervention program designed to improve student reading skills through the use of Read 180, a nationally recognized research-based program, with instructional software, high-interest literature, and direct instruction in reading or writing skills. Stronger reading skills will allow students greater success in all classes, as well as on standardized tests.

READING IMPROVEMENT (EFHS)

Extended literacy practice for English Language Learner students.

READING /WRITING INTERVENTION (FHS)

This one semester course is designed to assist struggling readers improve their reading and writing skills to ensure high school success

SPEECH *All Academies*

This course presents the various facets of writing, listening and speaking through the study and presentation of speeches, discussion, debate and oral interpretation. Students will research and write outlines, essays and critiques based on class presentations and projects.

STUDY SKILLS (FHS)

This course is designed to support students that are having academic struggles gain the skills they need to be successful in high school and beyond. Students in this course receive extra support in their academic classes, as well as instruction on organization, careers, budgeting and other necessary soft skills.

MATHEMATICS COURSES

AP CALCULUS AB *All Academies*

AP Calculus (AB) is comparable to two-thirds (20 weeks) of a year of college calculus. Topics covered include: analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity as a property of functions, derivatives (at a point, as a function, applications and computation of, also second derivatives), Riemann sums, interpretation and properties of definite integrals, applications of integrals, Fundamental Theorem of Calculus, techniques of antidifferentiation and numerical approximations to definite integrals. Students must express solutions graphically, numerically, analytically, and verbally. Graphing calculators will be used extensively. In order to be successful students need a thorough understanding of Algebra and Trigonometry. (Recommended prerequisite: B or better Precalculus)

AP STATISTICS *All Academies*

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data . Students are exposed to four broad conceptual themes:

- 1 . Exploring Data: Describing patterns and departures from patterns
- 2 . Sampling and Experimentation: Planning and conducting a study
- 3 . Anticipating Patterns: Exploring random phenomena using probability and simulation
- 4 . Statistical Inference: Estimating population parameters and testing hypotheses

ALGEBRA 1

This is a required 9th grade course, topics covered include algebraic, graphical, and numerical representations of algebraic expressions and functions. The primary focus is the study of the properties of real numbers, linear functions, solving multi-step equations, systems of linear equations and inequalities, exponential functions, quadratic functions, polynomials, and factoring. Techniques of problem solving and applications are included throughout the course. Graphing calculators will be used.

ALGEBRA 2

This is a required 10th grade algebra course. Topics covered include algebraic, graphical, and numerical representations of algebraic expressions and functions. The primary focus is the study of rational functions, exponential functions, logarithmic functions, and inverse variations, conic sections (circles, parabolas, ellipses, and hyperbolas). Techniques of problem solving and applications are included throughout the course. Graphing calculators will be used.

ALGEBRA CONCEPTS

Algebra Concepts course is an introduction to basic algebra concepts and a review of arithmetic algorithms. The course is designed to help 9th grade students overcome weakness in preparation in mathematics, emphasizing the concepts necessary to be successful in Algebra I and II. The course helps students to develop good mathematical study skills and learning strategies as an integral part of this course. The course begins with a brief review of the number system and operations with whole numbers, fractions, decimals, positive and negative numbers. Eventually covering rational and linear exponents, ratios, proportions and percentages; solving simple and complex equations with one variable. Second semester follows the Common Core for Algebra 1 by addressing Solving Equations/Inequalities, Function Essentials, Linear Function Applications and Essentials, Systems of Linear Equations. This course is structured to meet the needs of the students.

COLLEGE CONCEPTS *All Academies*

College Concepts is a senior course for the college bound senior that did not meet college readiness level on their SAT. The course works alongside Henry Ford College in preparing students for necessary math skills needed for college level courses.

College Concepts covers Elementary and Intermediate algebra skills.

1. The Basics
2. Linear Equations and Inequalities
3. Linear Equations and Inequalities in Two Variables
4. Systems of Linear Equations
5. Exponents and Polynomials
6. Factoring

There are two goals for the course in order to receive a waiver for MATH 110 at Henry Ford.

- The student must maintain an 80% for the duration of the course
- The student must earn a minimum of 70% on the cumulative **final**.
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GEOMETRY

This is a required 11th grade course. Students examine the properties of two- and three-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedra and other solids.

HONORS ALGEBRA 2

This course covers the same concepts as Algebra 2, however, at a faster pace and in greater depth. In addition, the study of trigonometry is also included (right triangle trig, unit circle, radian measure, trig identities, trig equations, law of sines, and law of cosines).

HONORS GEOMETRY

This class covers the same concepts as Geometry, however, at a faster pace and in greater depth.

MATH PLUS 9 (INTERVENTION)

This elective course is a supplemental mathematics class designed to give 9th grade students additional instruction/exploration/learning time to be more successful with Algebra 1. This class will look at the concepts as they are being done in Algebra 1 but will break them apart more thoroughly to revisit missed concepts from middle and elementary school that are embedded in the Algebra 1 concepts that students may be lacking. Algebra 1 concentrates on the application of algebraic concepts in problem solving.

PRE-CALCULUS 1, 2 *All Academies*

Pre-calculus is mainly concerned with developing students' understanding of the concepts that lead into calculus and providing experience with their methods and applications. Students will be actively engaged in problem solving, reasoning, connecting and communicating mathematically as they explore families of functions. Special emphasis will be on analysis of graphs of functions, linear, quadratic, polynomial, exponential, logarithmic functions, rational, exponential, logarithmic functions, and trigonometric functions, analytic Trigonometry, applications of trigonometry, law of sine and cosine, parametric equations and polar coordinates, systems and matrices, conic sections: parabolas, ellipses and hyperbolas, Discrete Mathematics sequences and series; if time permitted an introduction to calculus: limits, derivatives, and integrals. (Recommended prerequisite: B or better in Honors Algebra 2 and Honors Geometry)

STATISTICS *All Academies*

This is a 2 semester course to be taken after Algebra 2. Statistics is an activity/project based class. Students will generate their own questions and gather their own data through interviews with family, neighbors, students and teachers. They will keep track of their responses, make observations, and draw their own conclusions. Students will learn how to organize and analyze the data they have gathered, how to write their own reports using Excel and Powerpoint and how to present them orally. Knowledge of Excel and Powerpoint will be expected. Students will learn about measures of central tendency (mean, standard deviation, etc), explore univariate and bivariate data, and how to interpret variation within one data set and between multiple data sets. Students will learn how to design questions, run samples, recognize potential difficulties in various sampling methods, assess validity of conclusions, and recognize bias. They will further understand the importance of treatment and control groups, replication, and randomized block studies.

TRIGONOMETRY / PRE-CALCULUS *All Academies*

This course covers the same concepts as Pre-Calculus, with a greater emphasis on Trigonometry. Also, the pacing will be slower than the Pre-Calculus course. The primary focus is linear equations and inequalities, solving equations graphically, numerically, and algebraically, complex numbers, solving inequalities algebraically and graphically, functions and their properties, building functions from functions, parametric relations and inverses, graphical transformations, and modeling with functions, linear and quadratic functions and modeling, power functions with modeling, polynomial functions of higher degree with modeling, real zeros of polynomial functions, complex zeros and the fundamental theorem of algebra, graphs of rational functions, exponential and logarithmic functions and their graphs, properties of logarithmic functions, unit circle, trigonometric functions and their graphs will be covered in depth. Technology will be used regularly to reinforce the many relationships among the multiple representations of topics, to confirm written work, to implement representation, and to assist in interpreting results.

(Recommended prerequisite: D+ or better in Algebra 2 and Geometry)

MUSIC & THEATRE COURSES

Aligned to ALL Academies

CHORUS *All Academies*

Is a non-auditioned co-ed class geared for a beginning singer, who in most cases is being exposed to high school vocal music for the first time. This class should be taken by incoming 9th graders but opened to any grade level. No experience necessary! Learning vocal technique and basic musicianship skills are the basis of this class. This group performs at major concerts during the year

CONCERT & MARCHING BAND *All Academies*

All 9th grade students who were members of their middle school bands are eligible. Students must have their own instruments (tuba, baritone, percussion) will be supplied by the school when available. No beginners are admitted to this group. Attendance is mandatory at all rehearsals, concerts, football games and parades. Open grades 9-10.

CONCERT ORCHESTRA *All Academies*

All students who were members of their middle school orchestra and play the violin, viola, cello and bass are eligible. Violinists must own a violin. Violas, cellos and basses will be provided by the school when available. Attendance is mandatory at all rehearsals and concerts. Open to grades 9-10.

INTRO TO THEATRE *All Academies*

This course presents an introduction to the world of theatre focusing on its many different areas. Students will study the history and development of costume, make-up, lighting and properties design while viewing the process of play production inclusive of auditions to opening performance. Students will read plays of various style, period, form and setting written by a wide range of dramatists and comedians and memorize a variety of dialogues, monologues and other scripted material. Written compositions of analysis, comparison, contrast, evaluation, synthesis and critique will be assigned as well as various recitations, presentations and projects. Students are encouraged but not required to participate in extracurricular theatre programs

MENS ENSEMBLE *All Academies*

Men's Ensemble is a group of selected male singers who wish to receive more singing experience than Chorus. This class features pop as well as classical music. Music theory and sight reading is also taught. Men's Ensemble sings in outside performances that serve the community as well as regularly scheduled concerts at Dearborn High. (Prerequisite: permission of instructor)

PIANO 1 - 2 *All Academies*

No previous musical experience is required for Piano 1. Piano 2; however is for students who have completed/tested out of semester 1 in Piano. Students will receive written music theory skills and their applications at the keyboard in the keys of F major, G major, C major and their relative minors. This material will include chords, scales and songs in these keys. Their class time will be divided into two portions: written/lecture and practice time. All material presented can be mastered during class time; a piano at home is not required. A consumable piano theory workbook is required and students will assume responsibility of any damage towards the piano or headphones.

PIANO 3-4 *All Academies*

In this advanced piano class, students will progress toward the development of technique and knowledge required to play in all the most frequently used keys. Students in 3 most typically will play in book 2 with more advanced keys. A theory book is also required. Students in Piano 4 will proceed to book 3 in which they will be playing a simplified version of the great masterworks of piano literature. Students also will assume responsibility to payment or replacement of damage piano or headphones.

SYMPHONY & MARCHING BAND *All Academies*

Students are admitted to this class only by the approval of the instructor. Students must have their own instruments although the larger instruments (tuba, baritone, percussion) will be supplied by the school when available. Attendance is mandatory at all rehearsals, concerts, football games and parades. Open to grades 11-12.

SYMPHONY ORCHESTRA *All Academies*

Students are admitted to this class only by the approval of the instructor. Students must have their own violin, viola, cello or bass although the larger instruments (bass and cello) may be supplied by the school when available. Attendance is mandatory at all rehearsals, and concerts. Open to grades 11-12.

THEATRE PERFORMANCE *All Academies*

This performance based course focuses on the participation and experience of theatre performance from the perspective of both the actor and the director. Through the use of classical and contemporary monologues, scene work, improvisation, theatre games, vocal techniques and the rehearsal process, students will experience the full process of stage performance in a variety of participatory oral presentations. Students will write narratives, critiques and essays based on the theatre/drama environment and experience. Students will be required to participate and perform in various school productions as both performers and support crew throughout the year as scheduled by the theatre department. A grade of B- or better must be earned for the class to fulfill the speech credit requirement of Language Arts. Students may select this course more than one semester for additional elective credit. (Recommended prerequisite: Introduction to Theatre.)

THEATRE PRODUCTION *All Academies*

This activities based course will present students the opportunity to participate in the technical aspects of the production of a theatrical play. Students will study, create and display: set design and construction; lighting schemes; technical sound and music mixing; costume design and creation; make-up and properties. Both individual and team projects will be assigned throughout the course. Compositions, projects and designs will coincide with various productions offered by the drama department.

WOMEN'S ENSEMBLE *All Academies*

This is a select group of women singers who perform at all major concerts during the year. This group is primarily for juniors and seniors with previous experience in chorus. (Recommended prerequisite: permission of instructor)

PHYSICAL EDUCATION COURSES

Aligned to ALL Academies

Physical Education is a required course for grades 9 (2 semesters). Elective PE classes may be taken only after successful completion of required PE courses. The dominant aim of this program is to help students gain command over their own body, understand the importance of exercise, and to accept the challenge to improve their skills and fitness to their greatest potential. Students are provided with a variety of activities that will give them opportunities for individual success. Instruction is given in various sports areas to help students improve their skills.

AEROBICS and WEIGHT TRAINING *All Academies*

Students will have an opportunity to continue an exercise program using step aerobic dance, resistance bands/tubing, running, flexibility training, rope jumping, etc. With the instructor's help, each student will be able to work at their own rate of progress. Students will design a personal fitness program as a part of the course requirement. This course may only be taken once. (Required prerequisite: completion of 2 semesters PE/Health 9)

PE / HEALTH 9 – 2 semesters required *All Academies*

A. Individual sports, team sports, and fitness are components of both semesters. Understanding why exercise is vital to good health will be practiced and emphasized.

B. Fitness testing (Dearborn Public Schools – 7 fitness tests) will be a component of both semesters of PE/Health 9. Students will have the opportunity in class to practice and improve upon their flexibility, agility, cardiovascular endurance and strength in preparation for the testing as well as for the purpose of developing and maintaining personal physical health.

C. A health unit, as mandated by the State of Michigan, will be held in each of the two semesters. The program will consist of the following topics: conflict resolution, nutrition/diet, substance awareness, problems solving and HIV/AIDS, STI education.

D. Swimming is a requirement of PE/Health 9. Medical documentation from a licensed physician must be provided at the start of the school year if the student has a medical condition that prevents them from swimming. A substitute activity will be arranged for students with medical restrictions.

PE / HEALTH 9 GIRLS *All Academies*

This group of students will follow the same format as the class of their age group. Due to religious beliefs the girls will be separated from the boys. Swimming is required.

PE/HEALTH 10-12 *All Academies*

See PE/Health 9 sections A, B, and C for details. This course may only be taken one semester.

PE/HEALTH 10-12 Boys (EFHS, FHS) *All Academies*

See PE/Health 9 sections A, B, and C for details. This course may only be taken one semester.

PE/HEALTH 10-12 Girls (EFHS, FHS)*All Academies*

See PE/Health 9 sections A, B, and C for details. This course may only be taken one semester.

REC SPORTS 1 *All Academies*

During the first semester, students will have an opportunity to improve their strength and fitness, volleyball and tennis skills and participate at a more competitive level. Individual and team techniques of power volleyball and tennis will be taught and utilized in game situations. This course may only be taken once. (Required prerequisite: successful completion of 2 semesters PE / Health 9)

REC SPORTS 2 *All Academies*

Second semester will allow students to develop and practice the skills of basketball through identification, demonstration and drill work. Students will also learn basketball officiating through study of the NFHS basketball rules publication and the application of acquired knowledge in class game settings. Students will have the opportunity to improve their level of fitness. This course may only be taken once. (Required prerequisite: successful completion of 2 semesters of PE / Health 9)

SPORTS TECH *All Academies*

During this course, the student will participate in weight-lifting, agility, conditioning and skilled development drills aimed at furthering his/her skills as an athlete. To emphasize the responsibilities associated with the "student athlete", ACT preparation, NCAA clearinghouse requirements, college admissions procedures, drug/alcohol prevention and steroid abuse will be covered. With department permission, students of sophomore or junior standing may take this course a maximum of two times.

TEAM SPORTS *All Academies*

Floor hockey, touch football, softball, basketball, volleyball, team handball, speedball, soccer, lacrosse, and water polo are possibilities. Facility and equipment availability as well as student interest will determine specific sports to be covered during the semester. Students will have the opportunity to improve their level of fitness. This course may only be taken once. (Required prerequisite: completion of 2 semesters PE 9/Health)

SCIENCE COURSES

ANATOMY and PHYSIOLOGY 1, 2 *All Academies*

This is an advanced elective biology course designed for students who are interested in any medical related field, veterinary medicine, or physical education. Course work places emphasis on the anatomy and physiology of the human body. Dissection of a rat will play an integral role in the class. Highly recommended to take class prior to AP Biology or concurrently. (Recommended prerequisite: Biology and Chemistry)

AP BIOLOGY *All Academies*

This course will prepare students to successfully complete the Advanced Placement Examination in Biology. Textbooks and laboratory sessions are designed to cover the range and depth of college level Biology and will provide students with the conceptual framework, factual knowledge and analytical skills necessary to react critically in scientific procedures relevant to Biology, inclusive of: Molecules and Cells; Heredity and Evolution; and Organisms and Populations. Students will study scientific process, inquiry, and recognition of unifying themes, critical analysis and practical applications in laboratory settings. Critical, evaluative analysis both in writing and research assignments will be based on information and formats delegated by the College Board. (Recommended prerequisite: successful completion of Honors Biology and Chemistry)

AP CHEMISTRY *All Academies*

This course will prepare students to successfully complete the Advanced Placement Examination in Chemistry. Textbooks and laboratory sessions are designed to cover the range and depth of college level Chemistry and will provide students with the conceptual frame work, factual knowledge and analytical skills necessary to react critically and express ideas, both oral and written with clarity and logic in terms of scientific procedures relevant to Chemistry inclusive of: the structure of matter; kinetic theory of gases; chemical equilibrium; chemical kinetics; and, the basic concepts of thermodynamics. The AP Chemistry course includes topics that emphasize chemical calculations and mathematical formulation of principles and laboratory procedures. (Recommended prerequisite: successful completion of Chemistry and Algebra 1)

AP PHYSICS *All Academies*

This course will prepare students to successfully complete the Advanced Placement Examination, Physics B, and provide a systematic introduction to the main principles of physics emphasizing the development of conceptual understanding and problem-solving ability using algebra and trigonometry. Students will utilize the basic ideas of calculus as an introduction to the theoretical development of physical concepts such as acceleration and work. Course work will include: Newtonian Mechanics; Thermal Physics; Electricity and Magnetism; Waves and Optics; and, Atomic and Nuclear Physics. Students will also study topics relative to fluids and/or special relativity. (Recommended prerequisite: successful completion of Honors Physics or AP Chemistry and Algebra 1 and Honors Geometry)

AP ENVIRONMENTAL SCIENCE *All Academies*

This class is designed to give students an in-depth look at various facets of the earth. Students will study and provide solutions for environmental problems. Requirements and activities include field study, lab data testing, analysis, research and experimentation design in a variety of experiential settings, and formats. Students will be provided the concepts and methodologies needed to understand the complex interrelationships of the natural world. The goal of the course is to have students identify and analyze environmental problems, evaluate the relative risks associated with these problems, and to examine alternative solutions for resolution and/or prevention. AP Environmental Science is an interdisciplinary course, which incorporates science, economics, geography, and math. This course will contribute to the development of clear, analytical, critical thinking. Students will be expected to fulfill a reading assignment prior to the first class session. (Recommended prerequisite: C or better in Biology or Chemistry)

ASTRONOMY *All Academies*

What makes a star shine? For how long will the Sun keep shining? What are black holes and how can they form? What makes Earth such a special planet? Astronomy course will provide answers to these questions and more. This course will apply concepts of math, science and technology while studying celestial bodies. Students will be introduced to the universe, its motions and laws the govern it. There are 4 major ideas emphasized in this course:

Measurements: units of measurement, size of the universe
Stars: stars formation, stars' life and stars' death
Solar system: Terrestrial, Jovian planets and their moons, our star the sun.
Modern astronomical instruments: Hubble Space Telescope, the Spitzer Space Telescope, the Chandra X-ray Observatory. (Recommended prerequisite: Successful completion of two years of science)

BIOLOGY 1, 2

This is a year-long, freshmen level, activity based, laboratory course. The course investigates the essential and core content expectations for biology. Topics include organization and development of living systems, interdependence of living systems and the environment, genetics, and evolution and biodiversity.

CHEMISTRY 1, 2 *All Academies*

This is a one-year lab based course offered as a two-semester sequence. The course investigates the essential and core content expectations for chemistry. Topics include forms of energy, energy transfer and conservation, properties of matter and changes in matter.

ENVIRONMENTAL SCIENCE (FHS) *All Academies*

Environmental Science is a year-long course designed to show thematic connections between a variety of science disciplines including biology, chemistry, and physics. It gives students a coherent and realistic picture of the application of a variety of scientific concepts as they manifest in our environment. During this first semester of environmental science, students will focus on human population growth, natural resources, and ecosystem dynamics. The aim of this course to increase students knowledge of the environmental challenges of today, while continuing to cultivate scientific critical thinking skills.

FORENSIC SCIENCE 1, 2 *Academy of Human Services*

This is a lab-based class offered to students who have successfully completed two years of science. Students must understand and practice proper laboratory techniques. First semester course work will include an overview of forensic science, crime scene investigation, fingerprint analysis, document analysis, blood analysis, hair and fiber analysis, and ballistics. Students will also be required to do research and prepare a powerpoint presentation on a career in forensic science. Second semester course work will include an overview of the crime lab, glass analysis, impressions and prints, DNA, toxicology, anthropology, entomology, soil analysis, explosives and arson, and death and decomposition. Students will also be required to do research and prepare a powerpoint presentation on a high profile criminal case that was solved using forensic science techniques learned in class (Recommended prerequisites: successful completion of two years of science, preferably Biology and Chemistry)

HONORS BIOLOGY 1, 2

This is a year-long, freshmen level, activity based, intensive laboratory course. The course investigates the essential, core and recommended content expectations for biology. It is intended for college preparatory students who plan on entering a science or technical field of study in college. Topics include organization and development of living systems, interdependence of living systems and the environment, genetics, and evolution and biodiversity.

HONORS CHEMISTRY 1, 2 *All Academies*

This is a one-year intensive lab based course offered as a two-semester sequence. The course investigates the essential, core and recommended content expectations for chemistry. It is intended for college preparatory students who plan on entering a science or technical field of study in college. Topics include forms of energy, energy transfer and conservation, properties of matter and changes in matter. (Recommended prerequisite: successful completion of Geometry and concurrent selection of Algebra 2)

HONORS PHYSICS 1, 2 *All Academies*

This is a one-year intensive course offered as a two-semester sequence. The course investigates the essential, core and recommended content expectations for physics. It is intended for college preparatory students who plan on entering a science or technical field of study in college. Topics motion of objects, forces and motion, and forms of energy and energy

PHYSICS 1, 2 *All Academies*

This is a one-year course offered as a two-semester sequence. The course investigates the essential and core content expectations for physics. Topics include motion of objects, forces and motion, and forms or energy and energy transformations. (Recommended prerequisite: successful completion of Geometry and completion or concurrent selection of Algebra 2)

SOCIAL STUDIES COURSES

AP US GOVERNMENT & POLITICS *All Academies*

This one semester course will prepare students to successfully complete the Advanced Placement exam in United States Government and Politics. It will provide a learning experience equivalent to a college introductory course in political science. The course is open to 11th or 12th grade students who have high academic standing, superior academic achievement in social studies courses, and strong proficiency in writing and analytical reasoning. Students will complete extensive reading and analytical writing assignments. Exam review sessions and special learning activities will be offered in addition to regularly scheduled class instruction. United States government and politics will be studied from both analytical and critical perspectives. Students will learn the structure and function of American government and the institutions, groups, individuals, and processes that shape public policy. Content areas to be studied include federalism, separation of powers, the political beliefs and behaviors of individuals, political parties and interest groups, the Congress, the presidency, the bureaucracy, the federal judiciary, civil rights and liberties, and the relationship between economics and government.

AP MACROECONOMICS (MBCC) *Academy of Business and Hospitality*

AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts

AP MICROECONOMICS (MBCC) *Academy of Business and Hospitality*

AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts

AP US HISTORY *All Academies*

This course will prepare students to take the Advanced Placement United States History exam. It will provide a learning experience equivalent to a two-semester college survey course. Students will study the history of the United States from the founding of the thirteen English colonies to the present from both analytical and critical perspectives as well as gain insights and an understanding of the various beliefs, philosophies, and movements, which have shaped this nation. In order to accomplish these goals, students will be expected to complete extensive reading of both articles and original documents. (Recommended prerequisite: C or better World History)

CURRENT EVENTS (DHS, EFHS) *All Academies*

A one semester Social Studies elective in which students will study and discuss the origins and causes of the current issues of today from our state, across the nation & around the world. Through the use of articles, newscasts, and other research tools, students will investigate social, political, economic, religious, and cultural events, while trying to predict the possible outcomes of these issues

LINK CREW (EFHS, FHS) *All Academies*

This course will:

1. Continue the goals and ideals of Link Crew in an organized class form.
2. Provide for individual student growth in leadership and project management.
3. Support the Academy teachers and students in succeeding academically and behaviorally.
4. Model and mentor future Link Leaders and assist in building initiatives.

SOCIAL JUSTICE *All Academies*

This course is designed to introduce students to social justice issues and assist them in discovering their ability to create positive change in their own world. Students will critically analyze various social movements related to race, ethnicity, gender, sexual orientation, class, and other topics students bring up. Students will explore and discuss how these concepts influence human understanding, relationships, and behavior looking at a historical, political and social lens. Students will understand how individuals operate within community contexts created through interactions and relationships structured by sociability, belonging and responsibility. This course will encourage students to think critically and expansively about the social world and the conditions of humanity. Social justice will provide a foundation for students to explore social justice concepts, issues, and remedies, thereby developing the necessary analytical tools and information to see inequality and injustice and address historical and contemporary issues relevant to students' present-day lives.

SOCIOLOGY *All Academies*

This is a one semester course which introduces the student to a disciplined imaginative analysis of the social world. The course focuses on basic social institutions and contemporary issues. Emphasis will be on an inductive in-depth study of the process of socialization and social stratification. In addition, stress will also be placed on the student application of sociological principles and concepts.

PSYCHOLOGY *All Academies*

This is a one semester survey course intended to familiarize students with psychological terminology, research methodology, experimentation, and other psychological areas which affect the students as an individual within society. The course also examines different aspects of psychology such as perceptions, values and personality, and explores how they might affect the behavior of individuals in society.

U.S. ECONOMICS

Students will learn about the structure, function, principles, and problems of the American economy. Fundamental concepts of both macroeconomics and microeconomics will be introduced. A study of the nature of economics and the basic economic problem will form the basis for a systematic analysis of supply and demand, the factors of production, economic instability, the forms of business organization, labor relations, and the effect of government regulation. Special emphasis will be given to the role of government in the American economic system and the use of monetary and fiscal policies to achieve economic stability. Students will have the opportunity to use their substantive knowledge and social science skills to critically examine current economic problems.

U.S. GOVERNMENT

This is a one semester course describing the forms and functions of national, state and local governments in the United States. In this course, students will learn about the structure, principles, and ideals of the American system of government. An understanding of comparative political systems and the fundamental principles of American government will form the basis for a detailed analysis of the legislative, executive, and judicial branches of the federal government. Special emphasis will be given to a critical study of the Constitution and fundamental civil liberties in the Bill of Rights. Students will have the opportunity to use their substantive knowledge and social science skills to critically examine current public policy issues. The student will be able to compare and contrast our system of government with other major political systems in the world today. Students will learn the importance of individual participation in our democratic society.

U.S. HISTORY and GEOGRAPHY 1, 2

First semester's course is a survey of American History from 1865 to 1920. Areas of study include the Reconstruction period, the westward movement, the industrial era, the growth of organized labor, political reform, the Progressive era, the impact of immigration, the growth of cities, the Spanish-American War, and the role of the United States in World War I. A topical approach is used to explore political, economic, social, and cultural developments. The influence of geography on historical events is also analyzed. Students will increase their knowledge of historical events and deepen their understanding of our American heritage.

Second semester's course is a survey of American history from 1920 to the present. Areas of study include the Roaring Twenties, the Great Depression, the New Deal, the role of the United States in World War II, the Cold War, the Korean War, the changing lifestyles of the 1950's, political and social leaders in the 1960's, the Vietnam War, and the domestic and international challenges faced by the United States during the 1970's and 1980's. A topical approach is used to explore political, economic, social, and cultural developments. The influence of geography on historical events is also analyzed. Students will learn how the mistakes and triumphs of America's past shape our perceptions of current problems and our vision for America's future.

U.S. HISTORY THROUGH FILM (DHS, EFHS) *All Academies*

In this one semester course, students will study specific periods and events in U.S. History through the use of modern movies. The class will allow and challenge students to go beyond the use of a textbook to learn about American History. Students will watch and evaluate movies for their historical accuracy and educational value.

WORLD HISTORY and GEOGRAPHY 1, 2

World History and Geography takes a global and comparative approach to studying the world and its past to develop a greater understanding of the development of worldwide events, processes, and interactions among the world's people, cultures, societies, and environment. Students will investigate our diverse and common traditions, and work to understand the complex interactions among various environmental, human and social forces that have influenced and continue to influence us. Studying World History and Geography connects us to people and events across time and space, illuminating the range and depth of human experience on grand as well as local scales.

SPECIAL EDUCATION DEPARTMENT

DEPARTMENTALIZED PROGRAM

This program is designed for identified students with special needs who, through Individualized Educational Planning Committee determination, require some of their instruction in the content areas of language arts, mathematics, science or social studies taught by a special education teacher. Students are mainstreamed into general education classes whenever appropriate. Special education teachers also provide supplemental support to students on the caseload who are enrolled in general education classes. This may include consulting with parents and staff, modifying assignments, arranging for note takers, providing test accommodations or monitoring individual student progress.

AUTISM SPECTRUM DISORDER PROGRAM

This program is designed for students with Autism Spectrum Disorder (ASD), who may receive some or all of their academic instruction in a special education class. Courses in this program are taught by a special education teacher and include language arts, mathematics, science, and social studies. Although these classes are accommodated for student success, they are aligned with the curriculum in the general education classes. In addition, an elective course is also offered to students in the ASD program. This course is designed to with providing instruction to increase student success with verbal communication, social interactions, and life skills. . In addition, there are two paths to high school completion. The path is designed for students that will graduate with a high school diploma. The second path allows students to participate in the high school experience while earning a certificate of completion.

Teachers in the ASD program also provide supplemental support to students on their caseload who are enrolled in general education classes. This may include consulting with parents and other staff members, accommodating assignments, arranging for note takers, or monitoring individual student progress.

Job Skills is a course designed to provide ASD students with skills needed to be successful in all areas of their life. Students are provided with instruction in the areas of social interaction, the pragmatics of verbal communication, anxiety reduction, self-monitoring of behavior, and organization skills. In addition, sensory integration issues are also addressed, as necessary. This course may be taken several times throughout high school with different skills identified and various materials utilized as determined by the student's IEP.

MILDLY COGNITIVELY IMPAIRED PROGRAM

This program is designed for students identified with mild cognitive impairments who may receive most or all of their academic instruction in a special education class. Courses in this program are taught by a special education teacher and include language arts, mathematics, science, and social studies. Though modified, the classes are aligned with those in the general education curriculum.

The special education teacher also provides support to students taking general education electives and other courses. This may include consulting with parents and staff, modifying assignments, arranging for note takers, providing test accommodations or monitoring individual student progress.

BASIC CLASSROOM COURSE DESCRIPTIONS

LANGUAGE ARTS

This course is designed to teach the students the fundamentals of language arts. In this class, students will work on improving their knowledge of functional vocabulary, as well as increasing their reading skills and composition skills. The rudiments of English grammar will also be emphasized and taught. Students will be required to define survival/community words, write paragraphs and fill out forms, read fictional and informational texts, and practice the spelling patterns of common words. This course may be taken several times throughout high school with different skills identified and various materials utilized as determined by the IEP.

MATH / NUMERACY

This course is designed for students with limited mathematical and problem solving abilities. The course provides an in-depth focus on skills and concepts at each student's level that are tied to applications in the real world and connections to other math topics. An emphasis is placed on developing problem solving skills.

CONSUMER MATH/CONFIDENT CONSUMER a

This course is designed to help students increase their mathematical abilities as they relate to personal financial management. Students explore banking services, budgets, credit, insurance, and buying units. An emphasis is placed on developing problem solving skills. In addition to working from textbooks, students will participate in daily activities that apply problem solving concepts to the "real world."

SCIENCE (Biology and Physical)

In biology, students will deepen their understanding of topics related to biology and life science. Students will broaden their knowledge of food and nutrition, personal safety and fitness, the human body, animal and plant growth, and habitats for plants and animals. In physical science, students investigate the basic concepts of earth science, space and weather, matter, and energy in motion.

SOCIAL STUDIES (U.S. History, World History, Government, Consumer Economics) a

These courses are designed to help students explore and learn skills related to studying the past, using maps, and identifying geographical regions. In American history, students will survey United States geography and American history from the early 1400's to the present. Students will increase their knowledge of key historical events and prominent American citizens from the past. Areas of interest include landmarks and state capitals.

In world history, students will survey world geography and regions, as well as prominent historical figures. Students will increase their knowledge of how key historical events impacted the development of the world. In government, students will learn about the function, principles, and ideals of the American system of government. An additional focus will be on helping students understand how they can make meaningful contributions to their community as a knowledgeable citizen. In consumer economics, students will study banking and investments, community resources; they will also become more skilled at filling out occupational forms and more knowledgeable of community jobs.

DEPARTMENTALIZED SPECIAL EDUCATION INTERVENTION CLASSES**READ 180** a

Read 180 is a comprehensive reading intervention program designed for students who are reading below grade-level. The program utilizes sophisticated software, motivating literature, and scientifically-based research in reading instruction to help students become confident, successful readers.

MATH INTERVENTION a

Incoming freshmen are provided with a foundation in Algebra and problem solving that is needed for success in more advanced courses. Sophomores receive pre-teaching for Geometry concepts and skills. This transitional course has built-in study and note-taking strategies to help students develop their learning skills. Elective credit is awarded for this course.

VIDEO PRODUCTION COURSES (DHS)

ADV VIDEO 1, 2 (DHS) *Academy of Industry, Technology and Innovation*

Designed for the masters of writing, producing, and directing who have successfully completed the introductory Video-Editing classes. In these courses, students will concentrate and emphasize the subtleties and procedures for editing all formats of video taped productions. The award winning students work primarily with Digital Video Cameras, and incorporate creative talent through state of the art technology, graphic design, and animation. Students entering this course should be able to demonstrate nonlinear editing skills and have a comprehension of editing techniques and styles. This level requires a fluid understanding of production skills and event coordination. (Recommended prerequisite: Studio Production & Video Editing or permission of instructor.)

ADV MOVIE MAKING(DHS) *Academy of Industry, Technology and Innovation*

In this demanding course, students will write, direct, produce, edit and market a feature movie production or a series of shorts. This class is open to highly motivated students with a sincere interest in the visual arts. This class will involve weekend and evening shoots, on location work and requires a professional work ethic. Writing, artistic, computer and communicative abilities are all emphasized and defined during this lengthy endeavor. The production will be the featured attraction for a premiere of student work in the spring. A willingness to work as a group member and team leader is mandatory. (Recommended prerequisite: Studio Productions 1 but not required)

STUDIO PRODUCTION 1, 2 (DHS) *Academy of Industry, Technology and Innovation*

This is a hands-on digital production courses that allows exceptional students the opportunity to work side by side and personally with the instructor. All assignments are shot on location in the WDHS production studio. Post-Production is also completed on-site with the incorporation of various programs that emphasize the necessity of backgrounds, music selection and computer graphics.

VIDEO EDITING 1, 2 (DHS) *Academy of Industry, Technology and Innovation*

In these introductory courses, students will be taught the techniques and importance of linear online and non linear editing. Students will also be introduced to computer/web streaming audio and video production as well as an introduction to computer animation techniques. (Recommended prerequisite: Studio production 1-2 or permission of instructor.)

WORLD LANGUAGES COURSES

AMERICAN SIGN LANGUAGE 1st year

The yearlong course introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, finger spelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. The 2-year sequence of ASL will fulfill the MMC world language requirement which begins with the Class of 2016.

AMERICAN SIGN LANGUAGE 2nd year

This year long course develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge.

ARABIC 11st year

These are beginning courses offered to students who have no knowledge of the written Arabic language. We begin formal study of the structure of the language. Emphasis is on reading and writing. Grammatical structure is introduced in the second part of the course along with some communication skills. The culture and different dialogues of Arabic speaking countries are also introduced.

ARABIC 2nd year

Second year Arabic focuses on building conversational, reading, and grammar skills. Students will also begin writing original compositions, dialogues, plays, etc. The cultural aspects of the Arab World will be explored. (Recommended prerequisite: Arabic 1)

ARABIC 3rd year

This course is the continuation of study of Modern Standard Arabic. Arabic 5-6 offers the student the opportunity to focus on readings of a cultural, historical and literary nature; be able to discuss their content; and write about them in the target language. Short stories, poetry, newspapers, magazines, and videos, in addition to intermediate level literary works, will be used. The study of the fifth largest spoken language will include both reflections on the important historical facts and modern aspects of the Arab World. (Recommended Prerequisite: Arabic 2)

ARABIC 4th year

This fourth year Arabic course refines advanced skills in Modern Standard Arabic. Students will concentrate on advanced vocabulary and grammar. They will further explore various forms of literature, composition formats, and translation skills. (Recommended prerequisite: Arabic 3)

FRENCH 1st year

These are beginning courses in French which provide an introduction to the French language for students who have had no previous study of French. For those who have had conversational French in the elementary and middle schools, it begins their formal study of the structure of the language. Emphasis is on oral comprehension and speaking providing students with background for communication. Readings deal with everyday life situations in France and introduce French geography, history and culture.

FRENCH 2nd year

In French 3 and 4, reading is added to the basic skills of speaking and writing which were begun in French 1 and 2 and which will receive continued emphasis in 3 and 4. The reading provides material for oral use of the language and increases the student's French vocabulary. Cultural material in context is used. (Recommended prerequisite: French 1.)

FRENCH 3rd year

French 5 and 6 are conducted, as much as possible, in the French language. Students will increase their audio comprehension, speaking, reading and writing skills. Speaking in target language is important and encouraged. The knowledge of culture also is increased through a variety of materials. Opportunities for readings from the works of French authors are provided as well as the use of more advanced structures and idioms. (Recommended prerequisite: French 2)

FRENCH 4th year

The fourth-year of foreign language study is a continuation of the study of all 4 skills on an advanced level. French is the language of instruction in the classroom. There is a further refinement of the use of grammatical structures, vocabulary, pronunciation and an in-depth study of culture. The historical foundation of culture is introduced and developed. Students are encouraged to develop their language skills more proficiently to express themselves individually as well as group projects, video productions, debates and discussions. The development of full expression of ideas and the sharing of it are encouraged. (Recommendation prerequisite: French 3)

GERMAN 1st year

These are introductory courses offered to students who have no previous experience in German. The first year encompasses basic comprehension and speaking. Grammatical structure is introduced, but the emphasis is on the communicative skills. The geography and culture of German speaking countries are introduced.

GERMAN 2nd year

Second year German students continue to learn basic grammar with increased emphasis on speaking. Techniques used to improve the productive skills are mini-skits and summaries. Second semester students will read short graded readers. (Recommended prerequisite: German 1)

GERMAN 3rd year

These courses offer an intensive grammar review, cultural history and analysis of modern literature (poems and short stories.) Students will keep journals; write compositions and give short speeches. (Recommended prerequisite: German 2)

GERMAN 4th year

Fourth year German will fine-tune the skills learned in the previous years. Culture and literature will be studied more in-depth. Oral and written expression will be more refined. Students will debate and discuss topics of current interest. (Recommended prerequisite: German 3)

SPANISH 1st year

This year of Spanish stresses the fundamentals of Spanish conversation and the introduction of basic grammar. Students learn vocabulary and expressions used in basic conversation. Skills taught are: listening-comprehension, speaking, and an introduction to reading and writing within a cultural context.

SPANISH 2nd year

This second year of Spanish is a continuation of Spanish 1 and 2. Additional grammatical structures and their use are introduced and vocabulary is increased. Reading and writing skills are further developed. Cultural knowledge is increased. (Recommended prerequisite: Spanish 1)

SPANISH 3rd year

This year reviews the fundamentals of Spanish grammar. There will be a concentration of advanced grammar and vocabulary. Emphasis is given to speaking, reading and writing. Knowledge of the geography, culture and people of the Hispanic world is intrinsic. (Recommended prerequisite: Spanish 2)

SPANISH 4th year

This year emphasizes proficiency in listening, comprehension, speaking, reading and writing on an advanced level. Spanish is the language of instruction in the classroom. The objective of the course is to develop fluent and accurate comprehension and communication skills in both oral and written Spanish. The course will offer refinement of pronunciation, review of the grammar in all its aspects and enrichment of vocabulary in context. Further understanding in the reading of journals, articles, magazines and modern Hispanic literature, and extensive coherent writing of compositions in a given topic without the use of a dictionary are required. Course content will include intellectual interests of students and teacher (the arts, literature, history, culture, sports, current events, etc.). Materials will include audio and video recordings, films, newspapers and magazines. (Recommended prerequisite: Spanish 3)