### Piqua High School Program of Studies 2015-16

#WeArePiqua



Where Opportunity Matters!

-2-			

### 4 GRADES AND CREDITS

Junior High Credit, Credit Denial, Course Retake Option, Grading System, Grade Point Average, Home Schooled Students, Valedictorian and Salutatorian, Add-On Points Scheduling

### 6 EDUCATIONAL OPTIONS

Summer School, Success Academy, Flex Credit, Physical Education Waiver, Upper Valley Career Center, Special Education, ESL, OGT Intervention, Menlo Park, Advanced Placement Courses, College Credit Plus

### 9 ATHLETICS AND ACTIVITIES

Extracurricular Eligibility, Athletics, Extracurricular Activities

### 11 GRADUATION REQUIREMENTS

Graduation Requirements, End of Course Exams, UVCC Graduation, PHS and UVCC Honors Diploma

### 13 COLLEGE PREPARATION

College Bound Students, How Colleges Select Students, College Athletes

### 15 CAREER EXPLORATION

Ohio Means Jobs, College and Career Day, College Fair, College Visits, Job Shadowing, Career Clusters

### 16 CAREER CLUSTERS

Agricultural and Environmental, Arts and Communication, Business and Administrative, Construction, Education, Engineering and Science, Menlo Park: Engineering, Finance, Government and Public Administration, Health Science, Menlo Park: Health Sciences, Hospitality and Tourism, Human Services, Information Technology, Menlo Park: Information Technology, Law and Public Safety, Manufacturing, Marketing, Transportation

### 36 FOUR-YEAR SCHEDULE

Planning Sheet

### 38 COURSE DESCRIPTIONS

38 English 64 Family and Consumer Sciences 44 Math 66 Health And Physical Education

48 Science 68 Music

53 Social Studies 71 Pre-Engineering

58 Art 73 Technical

60 Business 75 World Languages

### 78 DISCRIMINATION POLICY

### Table of Contents

### JUNIOR HIGH CREDIT

Junior high school students successfully completing high school courses offered as part of the junior high curriculum (ex.: Algebra I, Geometry, Physical Science) will earn high school credit, but the grade will not be included into the high school GPA. One credit of math will be accepted from the junior high. 7th grade advanced math credit will count as an elective credit.

### **CREDIT DENIAL**

Teachers may deny credit if a student has not fulfilled course requirements even though mathematically the student may have a passing grade

### **COURSE RETAKE OPTION**

A student who earns a C or a D in any course may retake the course for improved achievement. The credit will be denied for the original course, but the course will remain on the transcript. A letter D will be added next to the original letter grade indicating the credit was denied. For example, Spanish with an original grade of C, would be recorded CD on the final transcript.

### **GRADING SYSTEM**

Piqua High School staff adheres to the following grading scale:

- A = 90 100
- B = 80 89
- C = 70 79
- D = 60 69
- F = Below 60

### **GRADE POINT AVERAGE**

The grade point average (GPA) is figured on the 4.0 scale for all courses, except those that are pass/fail, and it is used to determine class rank. A grade point is computed by multiplying the number of grade points earned in each course (A=4, B=3, C=2, D=1, F=0) times the number of credits the course is worth. The total number of points is divided by the number of credits attempted to determine the GPA. A grade of W/F will have an impact on the student's GPA, as it will be calculated into the cumulative GPA and the class rank.

### HOME SCHOOLED STUDENTS

Credits for home schooled students may be accepted by the Assistant Superintendent, but grade point average will not be accepted.

### VALEDICTORIAN AND SALUTATORIAN

For classes 2016, 2017, and 2018: Selections are based on GPA and add on points figured through seven semesters. For the class of 2019 and beyond, selections are based on GPA, course selection, and ACT/SAT scores through seven semesters. Each class will be presented with further details at class meetings and orientation.

### Grades and Credits

### **ADD-ON POINTS**

Advanced Placement and College Credit Plus courses are offered to encourage students to enroll in more challenging classes for personal benefit. Add-On Points are for the Classes of 2016, 2017, and 2018. The add-on point factor of A = .06, B = .04, and C = .02 will be applied to the GPA each semester. The following courses on the PHS campus are awarded add-on points: AP English Literature & Composition, AP English Language & Composition, AP Statistics, AP Calculus AB, AP Calculus B/C, AP Chemistry, Organic Chemistry, AP Physics I, AP Physics C. AP Biology, AP/ONU Government and Politics, AP World History, AP Macroeconomics, AP Spanish Language, AP German Language, AP French Language, AP Music Theory, AP/ONU Studio Art: 2 D Design/Drawing, ONU Human Biology, ONU US History to 1865, ONU US History Since 1865, ONU Sociology, ONU Athletic Training, ONU Pre-Calculus, ECC Human Biology, ECC Anatomy and Physiology, ECC Medical Terminology, ECC Introduction to Health Care, ECC Microsoft Suite I, ECC Microsoft Suite II, ECC Web Design, ECC Desktop Publishing, ECC Accounting, ECC Introduction to Business, ECC Personal Finance, and ECC Introduction to Marketing. PHS transcripts will reflect the 4.0 scale as well as the add-on GPA. The same format will be followed in releasing information for scholarships.

### SCHEDULING

During February, the scheduling process will begin. Please feel free to arrange a conference with your counselor during this time should there be any questions. Please give careful consideration in course selection. The counselors will change schedules for the next year until the last day of school. After the last day of school, students will remain in the course for the first 5 days. They will have the opportunity to change their schedule during days 6-10 by completing a course change request form which can be obtained in the counseling office. If a student changes a course during the first ten days, there will be no penalty to the student. After that time, W/F will be added to the final grade which impacts eligibility and GPA. Level changes within the same subject will be handled on an individual basis.

### **SUMMER SCHOOL**

Piqua High School offers selected summer school classes to students in grades 9 - 12 through the Success Academy. Classes will meet Monday through Friday for three weeks in June. Applications can be obtained in the spring.

### **SUCCESS ACADEMY**

Success Academy is a program designed to allow credit-deficient students the opportunity to earn credits online. Students utilize an internet-based academic program to complete classes that will fulfill requirements for graduation. Students may take classes during the school day or after school. Participation in the program requires permission of the building principal.

### **FLEX CREDIT**

Per Ohio Revised Code and Piqua School Board policy, Piqua High School allows students the opportunity to experience learning and the acquisition of skills through instruction or study outside of the traditional classroom. Credit flexibility options are designed for those students who demonstrate the ability, interest, and maturity to accept personal responsibility for their learning in a selected curricular area and are willing to pursue it beyond the typical classroom setting. Any student interested in participating in the Credit Flexibility option should see their counselor prior to May 15.

### PHYSICAL EDUCATION WAIVER

The PE Waiver is available to athletes, members of after school Marching Band, Color Guard, and Cheerleaders who practice and participate in a Piqua High School sanctioned activity on a daily basis. The guidance department will verify with the athletic department that the students completed 90% of the season. The sport or activity will be documented on the transcript. Excused students must complete one-half unit in another curricular area (not PE). Two seasons are required to waive the PE requirement; no partial credit can be earned.

### **UPPER VALLEY CAREER CENTER**

Students who are 16 or older, have completed two years of high school, meet program-specific requirements and meet the credit requirement of seven credits, including 1 math, 1 science, 1 English, and 1 social studies are eligible to attend the Upper Valley CC. Applications are available through the school counseling department and are accepted until the 10<sup>th</sup> day of school. Special needs students must have an IEP conference and plan prior to admission.

### SPECIAL EDUCATION

Special education services are provided to students with disabilities as defined by the Individuals with Disabilities Education Act (IDEA). Special education students are scheduled based upon the recommendations of the student's Individualized Education Program (IEP) team. Our special education and general education teacher's work together to offer a full range of instructional services to meet each student's needs.

# Educational Options

### **ESL**

The ESL Program is available to students whose first language is not English. It is designed to help non-native English speaking students develop the appropriate English language skills to succeed in all aspects of their education. They receive individualized instruction in reading, writing, listening and speaking. ESL students may also be entitled to curriculum and assessment modifications in their core classes based on their language level.

### **OGT INTERVENTION**

Piqua High School offers small group intensive intervention to students in need of passing any portion of the OGT. Sessions are offered prior to each test date. Students participating in at least 10 hours of summer intervention have an extra opportunity to the take the OGT in June.

### **MENLO PARK**

Menlo Park provides students with a career pathway in Health Sciences, Information Technology, and Engineering through a collaborative effort between Piqua High School and Upper Valley Career Center.

### ADVANCED PLACEMENT (AP) COURSES

AP courses are taught at high schools across the United States and allow students to participate in college level courses. Students could possibly earn college credit while still in high school. High schools and colleges cooperate in this program to give students the opportunity to show mastery in college-level courses by taking the AP exam in May of each school year. Colleges and universities may grant students college credit and/or accelerated placement on the basis of their AP test scores. It is important to note that these policies vary among institutions of higher learning. It is advised that students check with the colleges and universities they are interested in to see if they accept AP exams for credits.

### **COLLEGE CREDIT PLUS**

All students interested in College Credit Plus are required to attend one of Piqua High School's mandatory College Credit Plus meetings held in February and March. The student/parent must provide the Piqua City Board of Education with a non-binding notification by March 30 of the student's intent to participate in the program during the following school year. Students must complete the application and submit a transcript by the second week of the semester.

Ohio Northern University: Sophomores, juniors, and seniors must maintain a 3.0 GPA, earn a minimum 19 on the ACT, and receive a recommendation from a high school teacher. Students interested in taking math and science courses must earn a 23 on their ACT in the areas of math and science. If a final grade of D has been given the student will not be permitted to continue in the program unless the course is retaken and a grade of C or better is achieved.

Edison Community College: Any high school student with a qualifying ACT or Compass score. ACT: 18 in English and 22 in Math. Compass: 88 in Reading and a 52 in Math. Students may take classes on the Piqua High School campus or at Edison. Students must meet with their counselor for proper paperwork prior to registering for their semester classes. Scheduling conflicts of college courses and school activities are not the responsibility of the Piqua City School District.

# Educational Options

### College Credit Plus Course Offerings at PHS

	T = =			
Math	ONU Pre-Calculus			
	3 credits MATH 1251 ONU			
	3 credits MATH 1401 ONU			
Science	ONU Human Biology			
	3 credits BIOL 1101 ONU			
	ECC Human Biology			
	ECC Human Biology 4 credits BIO 124S ECC			
	4 Cledits BIO 1243 LCC			
	ECC Anatomy and Physiology			
	4 credits BIO125S ECC			
	4 credits BIO 126S ECC			
Social Sciences	ONU US History to and Since 1865			
	3 credits HIST 2141 ONU			
	3 credits HIST 2151 ONU			
	ONU Government			
	3 credits PLSC 2011 ONU			
	ONILI Sociology			
	ONU Sociology			
Fine Arts	3 credits SOC 1051 ONU ONU Art			
rine Arts	3 credits ART 1651 ONU			
Electives	ECC Medical Terminology			
Electives	3 credits OSA 151S ECC			
	o ciculo don 1910 Edd			
	ECC Introduction to Health Care			
	1 credit ALH 101S ECC			
	ONU Athletic Training			
	3 credits ATTR 1001 ONU			
Business/Computers	ECC Microsoft Suite I			
	2 credits CIT 101S and CIT 104S ECC			
	ECC Microsoft Swite II			
	ECC Microsoft Suite II 2 credits CIT 102S and CIT 103S ECC			
	2 credits CTT 1025 and CTT 1035 ECC			
	ECC Web Design			
	3 credits NET 101S ECC			
	ECC Desktop Publishing			
	3 credits OSA 253S ECC			
	ECC Accounting			
	4 credits ACC 121S ECC			
	ECC Introduction to Business			
	3 credits BUS 110S ECC			
	Colodita Boo 1100 Eoo			
	ECC Personal Finance			
	3 credits BUS 116S ECC			
	ECC Introduction to Marketing			
	1 credit MKT 101S ECC			
Physical Education	Yoga, HIIT, Strength Training, Cardio Kickboxing			
	1 PE credit per course PED 299S ECC			

# **4thletics and Extracurricular Activitie**

### **EXTRACURRICULAR ELIGIBILITY**

Students receiving two Fs at the conclusion of a grading period are declared ineligible for the next nine weeks. Athletes must also be passing 5 units of credit each nine week grading period per OHSAA. The W/F will impact the 2 "F" policy for extracurricular eligibility and the 5-credit requirement for the OHSAA. When registering for classes and changing class schedules, students/parents need to double check the total number of credits with the counselor.

### **ATHLETICS**

Piqua High School is a member of the Greater Western Ohio Conference (GWOC), participating in sports opposite Beavercreek, Butler, Centerville, Fairborn Fairmont, Greenville, Lebanon, Miamisburg, Northmont, Sidney, Springboro, Springfield, Stebbins, Tipp City, Trotwood-Madison, Troy, Wayne, West Carrollton, and Xenia.

Boys SportsGirls' SportsFootballVolleyballBasketballBasketballBaseballSoftball

Cross country Cross country

Tennis
Track
Soccer
Wrestling
Golf
Swimmir

Golf Swimming
Swimming Cheerleading
Bowling Bowling

### **EXTRACURRICULAR ACTIVITIES**

The following extracurricular activities are available to Piqua High School Students

<u>National Honor Society</u>: a group of juniors and seniors having a GPA of 3.6 or higher. The purpose is to uphold the standards of scholarship, leadership, character, and service.

<u>Student Council</u>: an organization of elected students that plans student based activities such as homecoming, honor roll assemblies and teacher appreciation breakfasts. Students must maintain high academic standards and attendance to continue as a member in Student Council.

<u>Key Club</u>: an international student-let organization which provides its members with opportunities to provide service, build character, and develop leadership.

<u>Link Crew</u>: students in grades 11-12 act as mentors to the incoming freshmen to help them transition into high school.

<u>Color Guard</u>: an auxiliary unit mainly concerned with the visual aspect of marching band through the use of flags and movement.

<u>Musical</u>: The Piqua High School Music Department presents an all school musical each spring. The musical is open to any PHS student. Auditions are held prior to holiday vacation. Rehearsals take place January, February, and March.

<u>Muse Machine</u>: promotes the arts in all its forms by bringing artists for in-school performances and providing field trips to members for other events.

<u>Academic Challenge</u>: a group which competes in quiz bowl type competitions. This is a winter GWOC sport.

<u>Spanish Club</u>: promotes the understanding of foreign cultures, while providing students with an opportunity to speak Spanish, explore artistic expression, and experience the flavor and diversity of the multi-faceted Hispanic culture in an informal setting.

<u>Art Club</u>: works on various large-scale art projects throughout the year. Members participate in projects to beautify the school and community as well as multiple fundraisers to support the club.

<u>French Club</u>: provides students, international students, faculty, and community members with the opportunity to practice conversing in French, to learn about French and Francophone culture, and to promote cultural awareness throughout the community and Piqua High School.

<u>Family, Career and Community Leaders of America (FCCLA)</u>: a dynamic and effective national student organization that helps young men and women become leaders and address important personal, family, work, and societal issues through Family and Consumer Sciences education.

<u>Interact Club</u>: a service organization, connected to the Rotary Club. Interact Club sponsors several events during the school year that focus on lifting up the community.

<u>Science Olympiad</u>: an academic competition team that competes in events consisting of building, identifying, modeling, and studying different scientific phenomenon.

Model UN: an opportunity for students to play a part in solving world problems. You play the role of a foreign country.

<u>Speech and Debate Team</u>: utilize acting and argument skills. This gives you a chance to compete with others in several categories, and find out who speaks the best. It also enhances necessary speaking skills.

<u>FOR Club</u>: FOR (Friends of Rachel) Club is a student led club designed to promote kindness. Students are involved in a variety of activities centered on creating a positive environment within the school and the community. In this club, members create, design, and implement projects to help enrich the lives of others.

### PIQUA HIGH SCHOOL GRADUATION REQUIREMENTS Piqua High School students are required to earn 21 credits

Piqua High School students are required to earn 21 credits, meet all end of course exam requirements, and complete 6 hours of senior service hours to meet graduation requirements.

- English: 4 credits
- Math: 4 credits Including 1 credit of Algebra II or equivalent. Three math credits must be earned at the high school.
  - Science: 3 credits including 1 Physical, 1 Biological, and 1 Advanced
  - Social Studies: 3 credits including 1 American History and .5 Government
  - Physical Education: .5 credit--2 semesters
  - Health: .5 credit
  - Electives: 6 credits including 1 credit in Fine Arts (grades 7-12).
  - Financial Literacy: Students must study financial literacy to graduate.
    This requirement can be met by completing one of the following
    courses: AP Macroeconomics, Economics, Finance and Banking,
    Accounting, Introduction to Business, Personal Finance, Personal
    Financial Management, CBI, Public Relations & Communications, or
    Career Connections.

### **END OF COURSE EXAMS**

### Ohio Graduation Test (OGT)

Class of 2016 and 2017 are required to pass all sections of the statewide OGT. Sections include Reading, Math, Writing, Science, and Citizenship. The OGT is given for the first time during March of the sophomore year. During the junior and senior years, it is given during the months of October and March. A June test is offered for those students participating in summer intervention.

### PARCC and AIR

Class of 2018 and beyond will take 7 end of course exams in English 9, English 10, Algebra, Geometry, Physical Science, US History, and Government. Each test is worth a maximum of 5 points. If the student earns 18 points with minimum scores of 4 points in English, 4 points in math, and 6 points in Social Studies and Science, the testing requirements for graduation are met.

### ACT or SAT

Class of 2018 and beyond may also take a college admissions test to meet graduation testing requirements. The college admissions test will be selected by the State Board in spring 2015. A student may use his or her highest verifiable score to meet the graduation requirement, regardless of when the score was earned. The college admissions test will begin as a requirement in the 2016-2017 school year.

### Job Skills Assessment

Class of 2018 and beyond may also take a Job Skills Assessment to meet graduation testing requirements. The job skills assessment will be selected by the State Board late this fall. Once an assessment is approved, students may request to take it at any time. Like the college admissions test, the highest verifiable score to meet the graduation requirement will count for the student, regardless of when the score was earned.

# Graduation Requirements

# Graduation Requirements

### **UPPER VALLEY CAREER CENTER GRADUATION REQUIREMENTS**

Upper Valley Career Center students are required to earn 21 credits and meet all end of course exam requirements. Senior service hours are not required.

- English: 4 credits
- Math: 4 credits Including 1 credit of Algebra II or equivalent. Three math credits must be earned at the high school.
- Science: 3 credits including 1 Physical, 1 Life, and 1 Advanced
- Social Studies: 3 credits including .5 American History and .5 Government
- Physical Education: .5 credit--2 semesters
- Health: .5 credit
- Electives: 6 credits
- Financial Literacy: Students will meet this requirement by completing Government at Upper Valley CC.

### PIQUA HIGH SCHOOL HONORS DIPLOMA

Graduating seniors have the opportunity to earn a Diploma with Honors. To qualify for this diploma, a student must fulfill all but one criterion.

- English: 4 credits
- Math: 4 credits including Algebra I, Geometry, Algebra II
- Science: 4 credits including physics and chemistry
- Social Studies: 4 credits
- World Language: 3 credits in one language or 2 credits each in two languages
- Fine Arts: 1 credit (grades 9-12)
- GPA: 3.5/4.0
- ACT: 27 or SAT: 1210

### UPPER VALLEY CC HONORS DIPLOMA

Graduating seniors have the opportunity to earn a Diploma with Honors. To qualify for this diploma, a student must fulfill all but one criterion.

- English: 4 credits
- Math: 4 credits including Algebra I, Geometry, Algebra II, or equivalent and another higher level course or a four-year sequence of courses that contain equivalent content.
- Science: 4 credits including two units of advanced science
- Social Studies: 4 credits
- Lab: 4 credits in career-technical education curriculum. Program must lead to an industry recognized credential, apprenticeship, or be part of an articulated career pathway which can lead to post-secondary credit.
- Ohio Career-Technical Competency Assessment: proficiency mark
- GPA: 3.5/4.0
- ACT: 27 or SAT: 1210

### College Preparation

### **COLLEGE BOUND STUDENTS**

The following courses are recommended for college bound students.

- 4 credits of College Prep or Pre-AP English
- 4 credits of math, including Algebra I, Geometry, Algebra II
- 3 credits of social studies
- 3 credits of science
- 2 credits of world language (same language)
- 1 credit of art or music (grades 9-12)

Four-year college bound students will complete college entrance exams. The entrance tests are the ACT and SAT. Both the ACT and SAT are given five to six times each year. A student may take the test as many times as he/she wishes and scores should be sent to the college. Colleges will generally take the best score when considering admission or scholarship. It is best to take the test no later than the spring of the junior year. This allows the student to complete a full three years of English, math, and science courses. Students are encouraged to take the test more than once.

PLAN: The PLAN is a shortened practice ACT test for high school sophomores. It tests English, math, reading, and science. It is an excellent preview in preparation for taking the real ACT.

PSAT/NMSQT: Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test. The test serves a dual purpose for juniors. Not only will the test be good "practice" for taking the SAT, but their test scores will determine eligibility for the National Merit Scholarship competition. Freshmen and sophomores have an opportunity to take the PSAT if there are seats available, but juniors have first priority. Scores of freshmen and sophomore students taking the PSAT/NMSQT are not reported to the scholarship agency, and they are not eligible to compete for scholarship money. It is taken for practice only.

ACT: Scores on the ACT are reported in English, math, reading, science reasoning, writing (optional but required by some schools), and a Composite (average of four). Scores will range from 1 to 36 with 21 being an average national score.

SAT: Highly competitive schools generally prefer the SAT. Scores are reported in critical reading, math, and writing. Scores on the SAT range from 200 to 800 on each part of the test.

Students should be prepared to apply to college by Thanksgiving but no later than Christmas of their senior year. The student will request transcripts from their counselor and provide a dollar for each request.

Seniors should check the list of scholarships posted on the guidance website. All families with college bound students should complete the FAFSA form (Financial Aid Form) after January 1 of their senior year. Colleges have priority deadlines. Complete the FAFSA by the deadline. Financial aid meetings are offered during November parent teacher conferences. Edison offers College Goal Sunday in February to help you complete your FAFSA.

### **HOW COLLEGES SELECT STUDENTS**

Colleges select students by the rigor of course work pursued by the student during high school, student rank, GPA, college entrance examination scores, service to the school and the community, extracurricular activities, attendance record, personal profile of the student, neatness and accuracy of the college application, letters of recommendation, and the personal interview (if required).

### **COLLEGE ATHLETES**

Students planning to participate in intercollegiate athletics may need to go through an eligibility center. If you are playing NAIA, you must register at <a href="https://www.playnaia.org/">www.playnaia.org/</a>. You must meet two of the three criteria: GPA (2.0/4.0), class rank (top 50%), and ACT (18) or SAT (860). If you are playing at a Division I or II institution, you must register at <a href="https://www.eligibilitycenter.org">www.eligibilitycenter.org</a>. GPA, ACT/SAT scores, and course requirements determine eligibility. Check with your counselor your freshman year to make sure you are taking a core curriculum that meets NCAA requirements. Downloaded forms should be signed and given to the student's counselor. Students must meet the following criteria:

- Graduate from high school
- Complete 16 core courses: 4 years of English (Must be College Prep English), 3 years of math, 2 years of science, 1 extra year of English, math, or science, 2 units of social science, 4 years of extra core courses (from any category above or world language, nondoctrinal religion, or philosophy). 10 core courses must be completed prior to the 7<sup>th</sup> semester of high school (January of your senior year). These course are locked in and cannot be retaken for improved credit.
- Division I: Uses a sliding scale to match test scores and grade point average to determine athletic eligibility. Grade point average is based on core courses.
- Division II: Earn a 2.000 grade-point average or better in your core courses and earn a combined SAT score of 820 or an ACT sum score of 68. There is no sliding scale in Division II.

# Career Exploration

### **OHIO MEANS JOBS**

Ohio Means Jobs is a one stop site to help students prepare for future careers. The website allows students to take career assessments, research careers, locate universities, apply for scholarships, and explore job opportunities. Visit <a href="https://jobseeker.ohiomeansjobs.monster.com/">https://jobseeker.ohiomeansjobs.monster.com/</a>

### **COLLEGE AND CAREER DAY**

Piqua High School offers a college and career day for all grade levels. Freshmen are able to visit business people from a range of career clusters. Sophomores take their PLAN test. Juniors and seniors visit college, military, and employment recruiters of interest.

### **COLLEGE FAIR**

Edison Community College offers a college fair for juniors and seniors. The high school will take students to the event. Over 60 college and university representatives from Ohio, Indiana, and Tennessee attend.

### **COLLEGE VISITS**

Juniors are allowed to attend 2 college visits. Seniors are allowed to attend 3 college visits. See your counselor prior to attending.

### JOB SHADOWING

Students are able to arrange to job shadow. See your counselor for an application.

### **CAREER CLUSTERS**

The Career Clusters are separated into sixteen areas and are designed to help students plan their educational experiences culminating in a rewarding career and independent adulthood. The information on the following pages is provided by Ohio Means Jobs.

- Agricultural Engineers
- Agricultural inspector
- Agricultural Scientist
- Animal Breeders
- Animal Scientists
- Animal Trainers
- Commercial Fishers
- Conservation Scientists
- Farm and Rank Workers
- Farm Equipment Mechanics
- Fish and Game Wardens
- Food Processing Workers
- Foresters
- Loggers
- Meat Cutters
- Nursery Workers
- Park Naturalists
- Recycling Workers
- Rock Splitters
- Trash Collectors
- Veterinarians
- Veterinary Assistants
- Water Treatment Plant Operators
- Zoologists

### Agricultural and Environmental Systems

Do you enjoy working with animals?
Do you have a green thumb?
Do you collect rocks?
Are you interested in protecting the environment?
Do you enjoy working outdoors?
Are science classes your favorite?

If you answered yes to two or more of the questions above, you might be interested in considering a career in agriculture, food, and natural resources.

If you chose to work in occupations in the Agriculture, Food, and Natural Resources cluster, you could raise plants and animals as sources for food and shelter. On the other hand, you could focus on selling and making products from plants and animals. These products include food, lumber, and fabrics. You might also provide advice and services that farmers and ranchers need to improve products. Another option in this cluster is to work to conserve natural resources and protect the environment.

### Helpful Piqua High School Electives

AP Biology
Bio/Environmental Engineering
AP Chemistry
Higher Level Math Classes
Environmental Science
Ecology/Genetics
Organic Chemistry
Microsoft Suite I and II
Small Business Ownership

### **Upper Valley Career Center Offerings**

Ag and Power Technologies Environmental Occupations Horticulture and Landscape Management

Edison Community College Offerings Geology/Earth Science A.S.

### Arts and Communication

Do you like to perform in front of an audience?
Are you interested in working in the movies or television?
Do you like to work with technology?
Is artistic expression important to you?
Are you active with the school or community theatre?
Does computer animation interest you?
Are you visually oriented?

If you answered yes, you might be interested in considering a career in arts, audio/video technology, and communications. If you are interested in working in this cluster, you have two avenues. One is to be the performer or artist. The other is to work behind the scenes to make the performance or publication happen. As a reporter, actor, or fine artist, you would use your creative talents. To assure that a concert or magazine is successful, you would use computers and sound equipment. The occupations in this cluster allow you to use your creativity, talent, and technical skills.

### Helpful High School Electives

Women's, Men's, Concert, & Show Choir Show Choir Combo, Marching Band & Symp

Show Choir Combo, Marching Band & Symphonic Band

Music Appreciation Intro to Music Theory Art I: Introduction to Art

Art II: Drawing and Painting

Art III: Studio Art

AP Studio Art: 2 D Design and Drawing

Photography, Ceramics

Speech Media I & II World Languages Yearbook

Newspaper Drama

Diama

Microsoft Suite I and II History of Rock and Roll

Sports Entertainment Marketing

Game Design

Digital Media Marketing

Digital Storytelling

Communications and Public Relations

### **Upper Valley Career Center**

Design and Digital Print Technologies

### **Edison Community College Offerings**

Fine Arts, AA Photography Fast Track English, AA Communication, AA Telecommunications AA

- Actor
- Agent & Business Manager
- Animator
- Announcer
- Art Director
- Broadcast Technician
- Camera Operator
- Cartoonist
- Choreographer
- Costume and Wardrobe Specialist
- Curator
- Dancer
- Editor
- Fashion Designer
- Film and Video Editor
- Fine Artist
- Graphic Designer
- Music Composers, Directors, and Arrangers
- Musicians
- News Reporters
- Photographers
- Printing Press Operator
- Producer and Director
- Proofreaders
- Set Designer
- Singer
- Technical Writer
- Video Game Designer
- Writer

- Administrative Services Managers
- Advertising Managers
- Billing Clerks
- Bookkeeping and Accounting Clerks
- Business Executives
- Computer Operators
- Court Reporters
- Data Entry Keyers
- **Employment** Interviewer
- Employment Recruiter
- Executive Secretary
- File Clerks
- Human Resources Manager
- Mail Clerks
- Office Manager
- Payroll and Timekeeping Clerks
- Property and Real Estate Manager
- Receptionist
- Secretaries
- Statisticians

### Business and Administrative Services

Do you enjoy working with other people? Are you good at working with numbers? Do you like to plan and organize activities? Have you started your own business? Do you keep your checkbook balanced? Are you an officer of an organization?

If you answered yes to two or more of the questions above, you might be interested in a career in business management and administration.

If you are interested in the Business Management and Administration cluster, there are many career options. You may provide the needed support to keep a business in operation. Or you might keep track of the expenses and income. You could manage the financial activities of a business. Another option is to be sure that a business has qualified employees who are trained to do their jobs. Or after years of education or experience, you might direct the operations of a business.

### **Helpful High School Electives**

Accounting Microsoft Suite I and II Personal Finance Introduction to Business Introduction to Marketing Sports/Entertainment Marketing Speech Finance and Banking Personal Financial Management AP Calculus

**AP Statistics** Digital Media Marketing

### **Edison Community College Offerings**

Business Management, AAB, certificate, and fast track Business Management, General Business Studies Option, AAB Business Management, Human Resources Management Option, AAB, certificate, and fast track

Business Management, Marketing Option, AAB and certificate **Business Certificate** 

Real Estate Certificate and fast track

Office Systems and Administration, Administrative Assistant Option AAB or certificate

Office Systems and Administration, Medical Office Support Option, AAB Medical Coder, Certificate and Fast Track

Medical Office Support, Certificate

Medical Office Support, Certificate

Office Documentation Specialist, Certificate

Basic Secretarial Skills. Fast Track

Medical Biller, Fast Track

Medical Secretary, Fast Track

Medical Transcription, Fast Track

Office Automation, Fast Track

### Construction Technologies

Do you often observe and note the buildings around you? Do you like to work with your hands? Can you visualize objects and projects in your mind? Do you like to create models or make designs? Do you like to work with tools, objects, and numbers? Do you like to use both mental and manual skills to solve problems?

Do you like to work both alone and with others?

If you answered *yes* to two or more of the questions above, you might be interested in considering a career in architecture and construction.

If you work in occupations in the Architecture and Construction cluster, you would be responsible for buildings and other structures such as highways and bridges. You might make designs and plans for new structures. Or, you would use the plans to build new structures and manage construction workers. Another option would be to take care of, repair, and restore existing structures.

### Helpful Piqua High School Electives

Exploring Technology
Engineering Design
Architecture Design
Leadership Development

### **Upper Valley Career Center Offerings**

Building and Grounds Maintenance Carpentry Electrical Trades HVAC/R

Edison Community College Offerings
Equipment Maintenance Technology, AAS
HVAC/R, certificate

Mobile Powered Equipment, certificate

- Architect
- Cabinetmaker
- Carpenter
- Cement Mason
- Construction Manager
- Drafters
- Drywall Installers
- Electrician
- Floor and Carpet
- Installer
- General Construction Worker
- Heating and Cooling System Mechanics
- Highway Maintenance Worker
- Interior Designer
- Janitor
- Landscape Architect
- Painter
- Plumber
- Roofer
- Sheet Metal Worker
- Surveyor

- Adult and Vocational Education Teachers
- Coaches and Scouts
- College and University Administrators
- Elementary School Teachers
- Fitness Trainers and Aerobics Instructors
- High School Teachers
- Librarians
- Middle School Teacher
- Preschool and Kindergarten Teacher
- Special Education Teacher
- Speech Pathologies and Audiologist
- Teacher Aides
- University and College Teacher

### Education and Training

Are you patient?
Have you coached sports activities?
Do you like to speak in front of groups?
Have you helped out in a school or library?
Do you enjoy teaching games to children?
Are you outgoing?
Do you like being in school?

If you answered yes to two or more of the questions above, you might be interested in considering a career in education and training.

In the Education and Training cluster, you would have the opportunity to guide and train young people. As a teacher, you could influence young lives. In addition, you could support the work of the classroom teacher as a counselor, librarian, or principal. If you are interested in working with adults, you could provide training to employees in a business. Each of these settings provides you with the chance to help people learn and improve their lives.

### **Helpful Piqua High School Electives**

Speech
Psychology
Microsoft Suite I and II
Child Development
Leadership Development
Communications and Public Relations
Digital Storytelling
Mentoring
Minority Studies
Sociology
AP Physics
AP Biology
AP Chemistry
The Novel

### **Upper Valley Career Center Programs**

Early Childhood Education Teacher Academy

### **Edison Community College Offerings**

Early Childhood Education, AAS Child Development Associate Credential, fast track Education, AA Education, AS

### Engineering and Science Technologies

Is science one of your favorite subjects? Do you prepare projects for science fairs? Do you enjoy reading science magazines? Are you detail-oriented? Do you want to know how things work?

If you answered yes to two or more of the questions above, you might be interested in considering a career in science, technology, engineering, or mathematics.

If you choose to work in the Science, Technology, Engineering, and Mathematics cluster, you have several avenues. One avenue is to do scientific research in laboratories or the field. Another option is to be involved in the planning and design of products and systems. The last avenue is to provide support to the scientists, mathematicians, and engineers so they can do their work.

**Helpful High School Electives** ECC/ONU Human Biology ECC Anatomy and Physiology AP Biology Bio/Environmental Engineering AP Chemistry Organic Chemistry **AP Physics** Research and Development Robotics Electronics

**Environmental Science** Microsoft Suite I and II Sociology

International Relations

AP Calculus

**AP Statistics** 

Architecture Design

**Engineering Design** 

Manufacturing Operations

Leadership Development

Ecology/Genetics

### **Upper Valley Career Center Offerings**

Pre-Engineering and Design Technologies

### **Edison Community College Offerings**

Mechanical Engineering Technology, AAS Advanced Manufacturing, certificate and fast track CAD, certificate and fast track CNC Programming, fast track Electronics Engineering Technology, AAS Automation and Robotics, certificate Electronics Networking, certificate and fast track Renewable Energy Technology, certificate Basic Electricity, fast track Factory Automation, Fast track Industrial Electrical Controls, fast track Biology, AS

- Aerospace Engineers
- Anthropologists
- **Archeologists**
- **Astronauts**
- **Bioengineers**
- **Biologists**
- Biomedical Engineers
- Cartographers
- **Chemists**
- Civil Engineers
- Electrical and Electronics Engineers
- Energy Engineers
- Engineering **Technicians**
- Environmental **Engineers**
- Environmental Scientists
- Geographers
- Geologists and Geophysicists
- Historians
- Industrial Engineers
- Manufacturing Engineers
- Marine Biologist
- Mathematicians
- Mechanical Engineers
- Meteorologists
- Nuclear Engineers
- **Physicist**
- Political Scientists
- Science Technicians
- Sociologists

### Menlo Park: Engineering

I want to be a Mechanical Engineer

I want to be an <u>Electronics</u> or <u>Electrical Engineer</u> I want to work as a <u>Machinist</u> or <u>Manufacturing Engineer</u>

Piqua HS

4 years CP English/AP English ONU Pre-Calculus **AP Statistics** AP Calculus AB & BC Microsoft Suite I & II **ONU Sociology Physics** AP Physics Engineering Design **Economics** AP Macroeconomics **Exploring Technology** Bio/Environmental Engineering Chemistry/Pre AP Chemistry AP Chemistry **Electronics** Research and Development Architecture Design **Manufacturing Operations** Robotics

Piqua HS

4 years CP English/AP English ONU Pre-Calculus **AP Statistics** Exploring Technology Microsoft Suite I & II **ONU Sociology** Chemistry/Pre AP Chemistry AP Chemistry **Physics** AP Physics Bio/Environmental Engineering **Engineering Design Economics** AP Macroeconomics AP Calculus AB & BC **Electronics** Research and Development Robotics Architecture Design Manufacturing Operations

Piqua HS

4 years CP English/AP English Microsoft Suite I & II **Exploring Technology** Psychology **AP Statistics** ONU Sociology Chemistry/Pre AP Chemistry AP Chemistry **Physics** AP Physics Bio/Environmental Engineering **Engineering Design** AP Calculus AB & BC Electronics Research and Development **Manufacturing Operations** Architecture Design

Upper Valley Career Center Pre-Engineering

**2-Year College**Mechanical Engineering
Technology

**4-Year University**Mechanical Engineering

Graduate School
Mechanical Engineering

Upper Valley Career Center
Pre-Engineering

2-Year College

Electronics Engineering Technology

**4-Year University** Electrical Engineering

**Graduate School**Electrical Engineering

**Upper Valley Career Center** 

Manufacturing and Machine Technologies Welding

**UV Career Center Adult** 

Precision Tooling and Manufacturing

2-Year College

MET, Advanced Manufacturing Systems Option

4-Year University
Manufacturing Engineering

Graduate School Industrial Engineering

Ohio Job Outlook

Growth Rate:

Machinist: 7.4%

MET (2-yr): 1.5% ME (4-yr): 2.7

Ohio Job Outlook

Growth Rate: MET (2-yr): 2.4% ME (4-yr): 5.4%

Annual Openings: MET (2-yr): 255 ME (4-yr): 477 Ohio Job Outlook

Growth Rate: EET (2-yr): 1.5% EE (4-yr): 4.5%

Annual Openings: EET (2-yr): 70 EE (4-yr): 282

Annual Openings: Machinist: 685 MET (2yr): 70 ME (4-yr): 146

Median Ohio Salary MET (2-yr): \$58,000 ME (4-yr): \$71,000 Median Ohio Salary EET (2-yr): \$56,500

EET (2-yr): \$56,500 EE (4-yr): \$77,000 Median Ohio Salary

Machinist: \$37,800 MET (2 yr): \$56,500 ME (4-yr): 85,500

- Accountants and Auditors
- Actuaries
- Appraisers
- Bank Tellers
- Bill Collectors
- Brokerage Clerks
- Budget Analysts
- Credit Analysts
- Credit Checkers
- Economists
- Financial Analysts
- Financial Examiners
- Insurance Adjusters
- Insurance Agents
- Insurance Underwriters
- Loan Clerks
- Loan Officers
- Securities Salespeople
- Tax Preparers
- Title Examiners

### **Finance**

Are you the treasurer of a club or organization?
Do you enjoy working with numbers?
Do you balance your checkbook?
Are you interested in the stock market?
Do you like to operate calculators?
Are you comfortable following detailed plans for work?

If you answered yes to two or more of the questions above, you might be interested in considering a career in finance. In the occupations in the Finance cluster, you would keep track of money. You might provide financial services to a business or individual. Your work could include maintaining records or giving advice to business executives on how to operate their business. You could work in financial planning, banking, or insurance.

### **Helpful High School Electives**

Accounting
Microsoft Suite I & II
Personal Finance
Introduction to Business
Sports/Entertainment Ma

Sports/Entertainment Marketing Speech

Finance and Banking Personal Financial Management

Economics

**AP Macroeconomics** 

**AP Calculus** 

**AP Statistics** 

Leadership Development

Communications and Public Relations

### **Edison Community College Offerings**

Accounting, AAB and certificate Accounting Clerk, fast track Tax Consultant, fast track Economics, AS Mathematics, AS

### Government and Public Administration

Have you served as an officer of a club or organization? Do you like to plan and organize activities? Are you interested in politics? Would you like to work in another country? Are rules and laws important to you?

If you answered yes to two or more of the questions above, you might be interested in considering a career in government and public administration.

Through the national, state, and local governments, the public can express its will and make our way of life possible. Through government, individuals can act together to accomplish what cannot be done alone. Most of these actions are carried out only by the government. For example, the federal government includes the military for protection. It also includes ambassadors who represent us in foreign countries. It is Congress that passes laws. The Administration carries out and enforces those laws. You would find almost every occupation within the government. However, this Government and Public Administration career cluster focuses on those occupations that are unique.

### **Helpful High School Electives**

Accounting Introduction to Business AP Government Microsoft Suite I & II **Economics** AP Macroeconomics International Relations World Language Minority Studies Psychology Sociology AP World Studies **AP Statistics** ONU US History to 1865 ONU US History since 1865 **Current Events** Research Methods Service Learning Leadership Development Communication and Public Relations

- Compliance Officers and Inspectors
- Construction and Building Inspectors
- Foreign Service Officers
- Government Benefits Interviewers
- Interpreters and Translators
- License Clerks
- Mail Carriers
- Meter Readers
- Postal Clerks
- Postmasters and Mail Superintendents
- Social and Community Services Managers
- Social Science Research Assistants
- Tax Examiners
- Transportation Inspectors
- Urban and Regional Planners

- Anesthesiologists
- Athletic Trainer
- Chiropractor
- Dental Hygienists
- Dental Lab Techs
- Dentist
- Dermatologists
- Dietitians
- Emergency Medical Technicians
- Exercise Physiologist
- General Practitioner
- Health Services
   Administrators
- Home Health Aides
- Licensed Practical Nurses
- Massage Therapists
- Medical Assistants
- Medical Lab Techs
- Medial Scientists
- Medical Secretaries
- MRI Technologist
- Nuclear Medicine Technologies
- Nurse Anesthetists
- Nurse Practitioners
- Gynecologists
- Optometrists
- Pediatrician
- Pharmacists
- Phlebotomists
- Physical Therapists
- Physicians Assistants
- Podiatrists
- Psychiatrist
- Radiologists
- Registered Nurses
- Surgeons

### Health Science

Are science classes your favorite?
Do you enjoy helping people?
Have you served as a volunteer in a hospital?
Do you follow instructions exactly?
Can you work fast in an emergency?
Do you take good notes in class?

If you answered yes to two or more of the questions above, you might be interested in considering a career in health science.

In the Health Science cluster you would promote health and wellness or diagnose and treat injuries and disease. You could work directly with people. Or you could work in laboratories to get information used in research or diagnosis. Health service employees may work in hospitals, offices, or laboratories. Others work on cruise ships, at sports arenas, or within communities.

### **Helpful High School Electives**

Child Development Microsoft Suite I & II

**Human Biology** 

ONU Human Biology/Anatomy and Physiology

**AP Chemistry** 

Organic Chemistry

**Ecology/Genetics** 

Medical Terminology

Intro to Allied Health

**AP Biology** 

Speech

**ONU Athletic Training** 

Sociology

**AP Statistics** 

Psychology

Higher level math classes

Research Methods

### **Upper Valley Career Center Offerings**

Medical Information Management Medical Technologies Exercise Science

### **Edison Community College Offerings**

Phlebotomy, certificate Physical Therapy Assistant, AAS Registered Nursing, AAS Medical Lab Technician, AAS Medical Assistant, certificate

### Menlo Park: Health Sciences

I want to be a Nurse

I want to be a Medical Lab Technician I want to be a Physical
Therapist or Physical Therapist
Assistant

Piqua HS

4 years CP English/AP
English
4 years CP Math
ONU Pre-Calculus
AP Statistics
Microsoft Suite I & II
ONU Sociology
Psychology
ONU Human Bio/Anatomy
and Physiology
Organic Chemistry

Piqua HS

4 years CP English/AP
English
4 years CP Math
ONU Pre-Calculus
AP Statistics
Microsoft Suite I & II
ONU Sociology
Psychology
Chemistry
ONU Human Bio/Human
Biology
Organic Chemistry
Intro to Health Care
Medical Terminology

Piqua HS
4 years CP English/AP
English
4 years CP Math
ONU Pre-Calculus
Chemistry
AP Physics B
Microsoft Suite I & II
ONU Sociology
Psychology
ONU Human Bio/Anatomy
and Physiology
ONU Athletic Training

Upper Valley Career Center Medical Technologies Upper Valley Career Center Medical Technologies Upper Valley Career Center Exercise Science

Upper Valley CC Adult Ed LPN

**2-Year University** Registered Nursing LPN to RN Program

**4-Year University**Bachelor of Science in Nursing

**Graduate School** Nurse Practitioner

**2-Year University**Medical Laboratory
Technician

**4-Year University**Medical Laboratory Science

Graduate School
Medical Laboratory Science

**2-Year University**Physical Therapy Assistant

**4-Year University**Pre-Physical Therapy

**Graduate School**Physical Therapy

Ohio Job Outlook

Growth Rate: 20%

Annual Openings: 2,000-5,000

Ohio Job Outlook

Growth Rate: MLT: 10%, MLS: 7.5%

Annual Openings: MLT: 177 MLS: 173 Ohio Job Outlook

Growth Rate: PTA: 29%, PT: 25%

Annual Openings: PTA: 162 PT: 302

Median Ohio Salary

RN/BSN: \$60,000 NP: \$87,000 LPN: \$40,000 Median Ohio Salary

MLT: \$39,000 MLS: \$55,000 Median Ohio Salary

PTA: \$54,000 PT: \$80,000

### Menlo Park: Health Sciences

I want to work as a Medical **Secretary** 

**Piqua HS** 4 years CP English/AP English Human Biology 4 years CP Math Finance and Banking Microsoft Suite I & II Accounting Medical Terminology Speech ONU Sociology

**Upper Valley Career Center** Medical Information Management

2-Year College

Office Systems and Administration

4-Year University Not Needed

**Ohio Job Outlook** 

Growth Rate: 31%

Annual Openings: 1,600

Median Ohio Salary \$29,000

I want to be a Nursing Assistant, Medical Assistant, or **Phlebotomist** 

Piqua HS

Earn 7 credits in English, Math, Science, and Social Studies. Medical Terminology Human Biology Psychology Intro to Health Care

**Upper Valley Career Center** Medical Technologies

2-Year College

Medical Assistant Phlebotomy

4-Year University Not Needed

Ohio Job Outlook

Growth Rate: STNA 13% MA: 21% P: 12%

**Annual Openings** STNA: 2,000 MA: 793 P: 224

Median Ohio Salary

STNA: \$23,000 Med. Assist: \$27,000 Phlebotomy: \$29,000

### Hospitality and Tourism

Can you talk easily with all kinds of people and put them at ease? Do you participate in athletic activities? Do you enjoy travel? Have you worked in a restaurant? Do you like to plan family recreational activities? Do you like to cook?

If you answered yes to two or more of the questions above, you might be interested in considering a career in hospitality and tourism.

In the Hospitality and Tourism cluster, you could work in a restaurant, hotel, sports arena, or travel agency. You might manage operations of a college cafeteria. Or you might guide high school students on a trip to Spain. Or you might rent equipment at a recreation center.

### **Helpful High School Electives**

World Languages
Healthy and Safe Foods
Healthy Living
Introduction to Business
Introduction to Marketing
Personal Finance
Leadership Development
Communication and Public Relations
Speech

### **Upper Valley Career Center Offerings**Culinary Arts

- Baggage Porters and Bellhops
- Baristas
- Caterers
- Chefs and Dinner Cooks
- Concierges
- Counter Attendants
- Fast Food Cooks
- Food Preparation Workers
- Hotel and Motel Managers
- Janitor and Housekeeper Supervisors
- Recreation Attendants
- Recreation Workers
- Reservation and Ticket Agents
- Restaurant Hosts
- Restaurant Managers
- Tour Guides
- Travel Agents
- Waiters and Waitresses
- Wedding Planners

- Addictions Counselors
- Barbers
- Child Care Workers
- Clergy
- Customer Service Representatives
- Embalmers
- Financial Counselors
- Funeral Attendants
- Funeral Directors
- Genetic Counselors
- Hairstylists and Cosmetologists
- Dry Cleaning Workers
- Manicurists
- Marriage and Family Therapists
- Mental Health Counselors
- Professional Organizers
- Psychologist
- Rehabilitation Counselors
- Residential Counselors
- School Counselors
- School Psychologists
- Social and Human Services Assistants
- Social Workers
- Tattoo Artists

### **Human Services**

Do you help friends with their personal problems? Have you planned programs for school or community organizations? Are you a good listener?

Do you care about people and want to help in some way? Have you cared for children or done babysitting?

Do you like to help friends and family members look their best?

If you answered yes to two or more of the questions above, you might be interested in considering a career in human services.

In the Human Services cluster, you would work with individuals and families to meet their personal needs.

### **Helpful High School Electives**

Child Development Microsoft Suite I & II Psychology

Sociology Speech

Mentoring

AP World History

Minority Studies
AP Statistics

World Languages

Service Learning

Leadership Development

Communication and Public Relations

### **Upper Valley Career Center Offerings**

Cosmetology

### **Edison Community College Offerings**

Social Services, AAS

Psychology, AA

Philosophy, SS

### Information Technology

Do you enjoy working with computers and learn new programs quickly? Have you created your own webpage? Is mathematics a favorite subject? Are you organized and able to focus on details?

If you answered yes to two or more of the questions above, you might be interested in a career in information technology.

Information Technology (IT) is an area that is growing and always changing with new developments. In IT, you would be part of a cluster that continues to make an impact on society and individuals. You would have the opportunity to work in all types and sizes of businesses.

Employees in Information Technology work with computer hardware, software, multimedia, and network systems. In this cluster, you might design new computer equipment or computer games. Or you might make sure that the software or networks are working. In addition, you might have to make sure that people know how to use them. Or you might manage whole networks that link workers in all parts of the world.

### **Helpful High School Electives**

Microsoft Suite I & II
Game Design
Desktop Publishing
Web Design
AP Calculus
AP Statistics
Media I & II
Leadership Development
Digital Media Marketing

### **Upper Valley Career Center Offerings**

Computer Information Technologies Interactive Media

### **Edison Community College Offerings**

Business Systems Option, AAB and certificate Computer Games and Simulation Programming, AAB Network and Computer Security Option, AAB Network Computer Management Option, AAB and certificate Programming Option, AAB and fast track Systems Administrator Option, AAB and certificate CIT. certificate Computer Languages, certificate Database Specialist, certificate and fast track .Net Programming, fast track Basic Computer Skills, fast track Cisco Certified Network Associate, fast track Computer Maintenance, fast track Help Desk, fast track Microsoft Academic Training, fast track Mobile Application Development, fast track Networking, fast track Regional Cisco Academy, fast track

- Computer and Information Systems Managers
- Computer Engineers
- Computer Security Specialists
- Computer Support Specialists
- Computer Systems Administrators
- Computer Systems Analysts
- Database Administrators
- Web Developers

### Menlo Park: Information Technology

I want to work as a Computer **Programmer, Information** Systems Manager, or Computer Security Specialist

### Piqua HS

4 years CP English/AP English ONU Pre-Calculus **AP Statistics** Microsoft Suite I & II **ONU Sociology** Psychology AP Calculus AB & BC Accounting **Physics** AP Physics B & C Eng CAD Media I & II Digital Media Marketing Web Design Game Design Intro to Marketing

### **Upper Valley Career Center** Interactive Media

Computer Information Tech

### 2-Year University

**Computer Information** Technology

### 4-Year University

Computer Science

### **Graduate School**

Masters of Business Admin Management Information Systems

### Ohio Job Outlook

Growth Rate: CP: 4.8% ISM: 14.6% CSS: 15.7%

Annual Openings: CP: 280 ISM: 323 CSS: 313

### Median Ohio Salary

CP: \$66,500 ISM: \$110,000 CSS: \$83,000

- Ambulance Drivers
- Animal Control Workers
- Mediators
- Bailiffs
- Border Patrol Agents
- Coroners
- Corrections Officers
- Court Clerks
- Crossing Guards
- Detectives
- Emergency
   Management
   Specialists
- Fire Fighters
- Fire inspectors
- Fire Investigators
- Forensic Science Technicians
- Judges
- Law Clerks
- Lawyers
- Legal Secretaries
- Life Guards and Ski Patrollers
- Paralegals
- Parking Enforcement Officers
- Police Supervisors
- Police Patrol Officers
- Private Detectives
- Probation Officers
- Secret Service Agents
- Security Guards
- Sheriffs
- Transportation Security Agents

### Law and Public Safety

Are you able to work under pressure?
Can you work with various kinds of people?
Do you like to help people?
Can you work in the face of danger?
Are you good at winning arguments?
Do you instruct friends and family members on laws and regulations?

If you answered yes to two or more of the questions above, you might be interested in considering a career in law, public safety, or security.

If you are interested in working in this cluster, you have several options. One option is to guard the public by enforcing the law. Or you might provide fire protection and security. Another option is to provide legal services to people who commit crimes.

### **Helpful High School Electives**

ONU/AP Government World Language Microsoft Suite I & II Psychology Service Learning Speech

Speecn Leadership Development

Communication and Public Relations

### **Edison Community College Offerings**

Criminal Justice (computer forensics option), AAS and fast track Paralegal Studies, AAB

### Manufacturing Technologies

Are you good with working with your hands?
Can you explain to others how a machine works?
Do you set up and repair stereo equipment for yourself or friends?
Do you enjoy reading the latest developments in electronics?
Can you visualize how a machine works?

If you answered yes to two or more of the questions above, you might be interested in considering a career in manufacturing, installation, or repair.

In the Manufacturing career cluster, you can choose one of several options. You might design a new product or determine how the product will be made. Another option is to make the product. The final option is to install and repair the product once it has been purchased.

### Helpful High School Electives

Exploring Technology
Manufacturing Operations
Engineering Design
Research and Development
Robotics
Architecture Design

### **Upper Valley Career Center Offerings**

Electronics

Manufacturing and Machining Technologies
Welding Technologies

### **Edison Community College Offerings**

Industrial Management, AAS
Supply Chain Management, certificate and fast track
Six Sigma, fast track
Quality Management, fast track
Manufacturing Management, fast track
Lean Manufacturing, fast track
Basic Human Relations, fast track

- Chemical Engineers
- Chemical Plant Operators
- Coin and Vending Machine Repairs
- Forklift Operators
- Geothermal Technicians
- Home Electronic Repairs
- Hydroelectric Production Managers
- Jewelers
- Locksmiths
- Machinists
- Packers and Packagers
- Power Plant Operators
- Precision Assemblers
- Quality Control Inspectors
- Safety Engineers
- Security/Fire Alarm Systems Installers
- Sewing Machine Operators
- Shoe and Leather Workers
- Tailors
- Tool and Die Makers
- Tool Grinders
- Watch Repairers
- Welders
- Wind Turbine Technicians
- Woodworking Machine Operators

- Advertising Salespeople
- Buyers and Purchasing Agents
- Cashiers
- Counter and Rental Clerks
- Customer Service Manager
- Demonstrators and Promoters
- Floral Designers
- Market Research Analysts
- Marketing Managers
- Merchandise Displayers
- Models
- Opticians
- Parts Salespeople
- Public Relations Managers
- Purchasing Managers
- Real Estate Agents
- Retail Salespeople
- Route Salespeople
- Sales Managers
- Sales Representatives
- Sales Worker Supervisors
- Telemarketers

### Marketing

Do you sell advertising space for the school yearbook or newspaper?

Do you like to do public speaking or debating? Are you good at organizing your own time? Have you helped convince people to participate in an activity? Are you friendly and outgoing?

If you answered yes to two or more of the questions above, you might be interested in considering a career in marketing, sales, and service.

If you are interested in working in the Marketing cluster, you would help businesses sell products. You might advertise and promote products so customers would want to buy them. Or you might sell products and services directly to customers. Or you might use the Internet to reach customers.

### **Helpful High School Electives**

Accounting

Microsoft Suite I & II

Introduction to Business

Introduction to Marketing

Newspaper

Speech

Sports/Entertainment Marketing

Yearbook

**AP Statistics** 

AP Calculus

**Economics** 

AP Macroeconomics

Personal Finance

Digital Media Marketing

Leadership Development

Communication and Public Relations

### **Edison Community College Offerings**

Business Management, Marketing Option, AAB and certificate

### Transportation Systems

Would you enjoy working outdoors in all kinds of weather? Do you have good eyesight and quick reflexes? Can you estimate distances accurately? Do you drive trucks or tractors to do work on a farm? Would you like to learn to fly an airplane? Do you repair your or your family's and friends' vehicles? Do you like to read automotive or mechanical magazines?

If you answered yes to two or more of the questions above, you might be interested in considering a career in transportation, distribution, and logistics.

If you are interested in working in this cluster, you have three avenues. One is to move people and products by road, air, rail, or water. You would drive or pilot different means of transportation. The second is to repair and maintain the vehicles, trains, plains, and ships to keep people and products moving. The third option is to work behind the scenes to make sure the products and people get to the right place on time.

### Helpful High School Electives

Exploring Technology Leadership Development Manufacturing Operations Engineering Design Robotics Research and Development

### **Upper Valley Career Center Offerings**

Aerospace Occupations Auto Collision Repair Technologies Auto Services Automotive Technologies

- Air Traffic Controllers
- Aircraft Mechanics
- Airplane Pilots
- Auto Body Repairers
- Bus and Truck
   Mechanics
- Bus Drivers
- Deckhands
- Dispatchers
- Flight Attendants
- Freight Handlers
- Heavy Equipment Mechanics
- Heavy Truck Drivers
- Light Truck Drivers
- Locomotive Engineers
- Motorboat Mechanics
- Motorcycle Mechanics
- Parking Lot Attendants
- Riggers
- Service Station Attendants
- Ship Engineers
- Taxi Drivers and Chauffeurs
- Train Conductors
- Transportation Agents
- Vehicle Cleaners

Four-Year Schedule		Name: ID: Date:			
roui-real Schedule					
					Jpper V Jndecid
9 <sup>th</sup>	Semester I	Semester II	Cou	rse Numbers	Credits
1	Compoter 1	Comodor ii		100 I tumbolo	Ordano
2					
3					
4					
5					
6					
7					
8					
10 <sup>th</sup>	Semester I	Semester II	Cou	rse Numbers	Credits
1					
2					
3					
4					
5					
6					
7					
8					

Semester I	Semester II	Course Numbers	Credits
	Semester I	Semester II	Semester I Course Numbers  Course Numbers

12 <sup>th</sup>	Semester I	Semester II	Course Numbers	Credits
1				
2				
3				
4				
5	_			
6				
7				
8				

### English

ENGLISH 9 111 CREDITS: 1 GRADE: 9

Pre-Requisite: None.

This class is for students wanting to pursue an education at the UVCC or gain employment after graduating. Students will work on mastering active reading skills and successfully using the writing process. Students will read at least one assigned novel and complete independent reading assignments. The NCAA does not accept this course. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

ENGLISH 9 COLLEGE PREP 112 CREDITS: 1 GRADE: 9

Pre-Requisite: Passing English 8 This course is intended for those students who plan to attend college after high school.

The course will concentrate on reading, writing in various genres including a research project and using communication skills needed for successful completion of college. Students will study a variety of literary genres, use analytical and critical thinking skills, and learn advanced composition skills. Grammar skills will be reinforced. Requirements for this class include independent reading, independent study, group work, in-class reading and discussion, and at least one classic novel. Students are expected to complete homework on a regular basis. Materials Needed: Three-ring binder, tab dividers, filler paper, blue or black pens/pencil, and highlighter.

PRE-AP ENGLISH 9 113 CREDITS: 1 GRADE: 9

Pre-Requisite: A or B average in English 8, accelerated or advanced score on Reading PARCC, teacher recommendation, & completion of summer assignment.

This course is for students who are planning to take Advanced Placement (AP) English in their junior and/or senior year. It is recommended for students who are highly motivated and definitely college-bound. The course concentrates on extensive reading, writing, analysis, and vocabulary. Students in this class should have a working knowledge of the rules of grammar and of literary elements and terms. Students should be able to work independently. Selections follow the College Board's recommendation for pre-AP ninth grade reading. Students enrolled in Pre-AP English 9 are expected to take the PSAT test to prepare them for the SAT. Materials Needed: Three-ring binder, tab dividers (5), loose leaf paper, blue or black pens/pencil, and highlighter.

ENGLISH 10 121 CREDITS: 1 GRADE: 10

Pre-Requisite: English 9

English 10 is for students wanting to pursue an education at the UVCC or gain employment after graduating. This class is for students who need to improve their reading comprehension, writing skills, and vocabulary. This class will focus on the integration of literature, writing, and composition skills. Writing assignments will be in collaboration with the textbooks used in class. Instruction will be based on Ohio content standards. The NCAA does not accept this course. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

## English

### **ENGLISH 10 COLLEGE PREP**

CREDITS: 1 GRADE: 10

Pre-Requisite: English 9 CP or teacher recommendation

This course is designed for the student planning to attend college. Students will be studying world literature with an emphasis on the 10th grade Ohio Academic Standards, including the areas of reading, writing, acquisition of vocabulary, research, and oral and visual communications. Collaborative learning and independent study will be used to complete projects and assignments. Students will continue to receive instruction enabling them to successfully pass and complete the Reading and Writing portions of the Ohio Graduation Test. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

### **PRE-AP ENGLISH 10**

123

122

CREDITS: 1

GRADE: 10

Pre-Requisite: Pre-AP English 9 or English 9 CP with teacher recommendation. Completion of summer assignment.

This course is designed for students who are planning to take Advanced Placement English in their junior and/or senior year. Extensive reading and writing will be the focus. Oral participation and organizational and time management skills are essential for success. Thematic studies of literature will concentrate on analytical and critical thinking skills. Students should be able to work independently. Students enrolled in Pre-AP English 10 are expected to take the PSAT test to prepare them for the SAT. Materials Needed: Threering binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

**ENGLISH 11** 131

GRADE: 11 CREDITS: 1

Pre-Requisite: English 10

This class is for students who need to improve their reading comprehension. writing skills, and vocabulary. Students will be studying American literature with an emphasis on the 11th grade Ohio Academic Standards, including the areas of reading, writing, acquisition of vocabulary, research, and oral and visual communication. The NCAA does not accept this course. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

### **ENGLISH 11 COLLEGE PREP**

132 GRADE: 11

**CREDITS: 1** 

Pre-Requisite: English 10 CP or teacher recommendation

American literature, composition, vocabulary, and oral communication are the focus of English 11. Students who take this class should be planning to attend a four-year college or university after graduation. Students are expected to work independently and utilize critical thinking skills. Students will also prepare to take the ACT and SAT tests for admission to college. Students enrolled in College Prep English 11 are expected to take the PSAT and should take the ACT in the spring. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

## Englist

### AP ENGLISH LANGUAGE AND COMP

133 GRADE: 11 CREDITS: 1

Pre-Requisite: Pre-AP English 10 or English 10 CP with teacher recommendation, & completion of summer assignment.

It is strongly recommended that students planning to attend a selective four-year university after graduation consider taking this course regardless of planned major. Advanced Placement Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Students will discover the interactions among a writer's purposes, audience expectations, and subjects as well as the way conventions and the resources of language contribute to effectiveness in writing. Writing assignments focus on expository, analytical, and argumentative essays as well as personal and reflective writing. A focused research project will be required towards the end of the course. The course prepares students for the AP test in the spring when college credit may be earned. Students must have access to a working, reliable printer as multiple copies of essay assignments are required for peer review. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

**ENGLISH 12** 141 GRADE: 12 CREDITS: 1

Pre-Requisite: English 11

Students will review and continue to improve their reading, writing, and vocabulary skills in this class. Students will also work on collaborative and organizational skills. British literature will be the focus of reading. Novels, plays, and films will be incorporated into the curriculum. There is an emphasis on reading process skills and opportunity for literary analysis. Writing will focus on a variety of purposes and audiences. The NCAA does not accept this course. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

**ENGLISH 12 COLLEGE PREP** 142

GRADE: 12 CREDITS: 1

Pre-Requisite: English 11 CP

Students enrolling in this course should be planning to attend a two-year or four year university. Emphasis will be on developing post-secondary skills in reading comprehension, advanced composition, research, vocabulary, and collaborative activities. Students will read selections from British literature as they study British history. An independent, substantial, literary-based research project will be required of all students. Students should expect to invest time outside of class in reading. Those who do not study regularly do not tend to be successful in this class. Materials Needed: Three-ring binder, tab dividers, loose leaf paper, blue or black pens/pencil, and highlighter.

### AP ENGLISH LITERATURE AND COMP

143 CREDITS: 1 GRADE: 12

Pre-Requisite: AP English Language and Composition or English 11 CP with teacher recommendation. Completion of summer assignment. It is strongly recommended that students planning to attend a selective fouryear university after graduation consider taking this course regardless of planned major. Advanced Placement Literature and Composition engages students in the careful reading and critical analysis of imaginative literature. Through an intensive study of representative works from various genres and periods, accompanied by thoughtful discussion and writing, students should deepen their understanding of the ways authors use language to provide meaning. Careful attention to both textual detail and historical context will be considered when analyzing the works. Writing assignments focus on the critical analysis of literature, and include expository, analytical, and argumentative essays. The course prepares students for the AP test in the spring where college credit may be earned. The AP Literature and Composition course develops critical and analytical reading and writing skills. Materials Needed: 1 - 1 ½ inch Three-ring binder, dividers, post-it notes, highlighters, and folder.

**ECC COLLEGE 101** CREDITS: .5

153 **GRADES: 10-12** 

Pre-Requisite: None

College 101 is useful for any student preparing for college. Topics include learning strategies, choosing the right college, career and academic goals, communication skills, students' rights and responsibilities, time management, study skills, college financial aid, college admissions, and electronic resources. This course is for elective credit. Students may earn 1 credit from Edison Community College upon completion. Materials Needed: Flash drive, (1) 1 ½ three-ring binder with pockets, notebook, folder, and pencil/pen.

### **NEWSPAPER WRITING**

CREDITS: 1

**GRADES: 10-12** 

Pre-Requisite: C average in last earned English credit or teacher recommendation

The purpose of Newspaper Writing will be to develop the skills needed to write publishable newspaper articles. Emphasis will be placed on deciding what is a newsworthy item, writing a good lead, interviewing for information, and creating interesting titles. Students will be writing articles for the school newspaper *The* Tomahawk Beat, which is published online, as well as Smoke Signals, which appears in the local paper, The Piqua Daily Call, once a week. They will be required to meet weekly deadlines, and may have to do some reporting outside of the school day. Photography and graphic design experience, while not required, is also a plus for this class. This course is for elective credit only. Materials Needed: Spiral Notebook.

### nglist

### English

YEARBOOK 151

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Successful completion of an application process with approval by the instructor, & completion of summer assignment.

The purpose of the Yearbook Class is to develop the skills needed to produce a quality high school yearbook. Emphasis is placed on writing, graphics, photography, and advertising. Students will participate in all phases of production. Journalistic writing, photography analysis, and promotional advertising will be studied and used as the book is created. Students with photography experience and interest in writing or business management are especially encouraged to enroll. Yearbook work is frequently time consuming, and students will be required to participate in some after school sessions. This course is for elective credit. Materials Needed: None.

THE NOVEL 152

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Successful completion of English 9 & a grade of C or better in current English class

The course will explore the relatively recent origin and evolution of the novel. The majority of the coursework will involve reading, discussion, and written analysis of the novels read. Class time will be given for reading assignments, but students will be expected to read outside of class. Approximately 4-5 novels will be read in the semester. Students may be required to purchase some paperback titles. Novels read in this class will not count toward independent reading in regular English classes. Novels may contain mature content. This course is for elective credit. Materials Needed: Folder.

DRAMA 154

CREDITS: .5 GRADES: 10-12

Pre-Requisite: None

This class will serve as an introduction to all aspects of theatre. It will cover memorization skills, performance, evaluation, characterization, and history of theatre. This class will use readings, projects, movies, TV shows, and hands-on activities to survey a broad field of theatre. Class requirements include participation and performing memorized pieces on stage and reading aloud. This course is for elective credit. Because of the participatory nature of this class, attendance is graded. Materials Needed: Folder.

SPEECH 155

CREDITS: 1 GRADES: 10-12

Pre-Requisite: C average in last earned English credit or teacher recommendation

Students will learn about the communication process and the types of oral communication, concentrating on public speaking. Students will research, compose, and deliver informative, process, and persuasive speeches. Listening to and evaluating others' speeches will also be stressed. This course is for elective credit only. Materials Needed: 3 x 5 lined note cards, folder, and loose leaf notebook paper.

### FILM AS LITERATURE I

CREDITS: .5 GRADES: 10-12

156

157

Pre-Requisite: Successful completion of English with a grade of C or better This course will use both film and literature terminology to better understand the craft of story-telling through film. Both classic and modern films will be viewed, offering students not only enrichment in critical thinking skills, but an education in our shared culture as well. The heart of the class is discussion. Since careful viewing of the film is important for good class discussion, excellent attendance is imperative for success in this class. Students will write various papers in response to films. You'll never see a movie the same way again! This course is for elective credit only. Materials Needed: Folder.

### FILM AS LITERATURE II

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Film as Literature I

This course will build on the skills developed in Film as Literature I with continued critical analysis of both film and print texts. The heart of the class is discussion and the exchange of ideas/insights based on the film and print texts. Students will develop skills in speaking, listening, supporting ideas with specific evidence from the text, and making thematic connections between genres. Writing will be based on both film and print texts. Students should have excellent attendance as it is difficult to duplicate the class experience. Materials Needed: Folder.

### PUBLIC RELATIONS & COMMUNICATIONS 158

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Application and teacher recommendation.

This class is designed to prepare students for the career world and effectively communicating throughout different mediums through the successful planning and execution of Piqua High School's Dance Marathon. Students will learn social media, email, phone, letter, and grant writing etiquette; as well as promotional communication skills through video creation, interviewing, public speaking, and marketing techniques. Students will also gain a working knowledge of tax exemptions, non-profit organizations, and competitors while learning how to manage budgets, operating costs, and purchase orders. This is elective credit only. Materials Needed: Folder, notebook, pens, and pencils.

## English

ALGEBRA I 312

CREDITS: 1 GRADES: 9-11

Pre-Requisite: None

This course will meet the requirements of the Common Core Standards for Algebra I. The course will include pre-algebra, linear algebra, polynomials, functions, exponents, and quadratic equations. Problem solving techniques and application of math concepts to real situations will be the emphasis of this course. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

FRESHMAN PRE-ALGEBRA II 313

CREDITS: 1 GRADES: 9

Pre-Requisite: Geometry

This course is designed for students who had difficulty in Geometry and are not prepared for an Algebra II course at this time. Topics covered include algebraic concepts, geometric concepts, functions, and graphing calculator skills. This course is not available for sophomores, juniors, or seniors. Successful completion of this course will allow students to move onto either Advanced or Regular Algebra II, and then Pre-Calculus and AP Calculus and/or AP Statistics as seniors. This course will NOT fulfill the graduation requirement for Algebra II. This course does not meet NCAA clearinghouse requirements. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

GEOMETRY 322

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Algebra I

This course will meet the requirements of the Common Core Standards for Geometry. The course will include plane geometry, logical reasoning, right triangle trigonometry, and probability. Problem solving techniques and application of math concepts to real situations will be the emphasis of this course. Materials Needed: A TI-84 Plus calculator, notebook paper, compass, protractor, and pencil.

PRE-ALGEBRA II 331

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Geometry

This course is designed for students who had difficulty in Geometry and are not prepared for an Algebra II course at this time. Topics covered include algebraic concepts, geometric concepts, functions, and graphing calculator skills. This course is not available for freshmen. Successful completion of this course will allow students to move onto Algebra II. This course will NOT fulfill the graduation requirement for Algebra II. This course does not meet NCAA clearinghouse requirements. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

ALGEBRA II CREDITS: 1

332 GRADES: 9-12

Pre-Requisite: Geometry or Pre-Algebra II

This course will meet the requirements of the Common Core Standards for Algebra II. The course will include linear algebra, polynomial functions, exponential and logarithmic functions, rational equations, trigonometry, and data analysis. Problem solving techniques and application of math concepts to real situations will be the emphasis of this course. This course will fulfill the graduation requirement for Algebra II. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

**ADVANCED ALGEBRA II** 

333

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Complete Geometry with A or B average or teacher recommendation

This course will meet the requirements of the Common Core Standards for Algebra II. The course will include linear algebra, polynomial functions, exponential and logarithmic functions, rational equations, trigonometry, and data analysis. Problem solving techniques and application of math concepts to real situations will be the emphasis of this course. These topics will be studied in more depth than in Algebra II. Advanced Algebra II will also include the study of arithmetic and geometric sequences and series, the binomial theorem, polynomial functions, and the remainder and factor theorems. This course will fulfill the graduation requirement for Algebra II. Materials Needed: A TI-84 Plus calculator, notebook paper, graph paper, and pencil.

FUNCTIONS AND ANALYSIS CREDITS: 1

342

Pre-Requisite: Algebra II & teacher recommendation

This course is designed for those students that had difficulty at the Algebra II level. Students who have already had or who are currently taking Pre-Calculus cannot take this course without permission of the Math Department Chair. Functions and Analysis is a course designed to help the student relearn and/or reinforce the skills of Algebra II that are necessary for the foundations of Pre-Calculus. The students will also study trigonometry and its applications, not to mention the extended study of graphical analysis. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

PRE-CALCULUS CREDITS: 1 343

**GRADES: 10-12** 

**GRADES: 11-12** 

Pre-Requisite: Algebra II & Geometry

Pre-Calculus is designed for the college bound student. This course will give the student the necessary background to succeed in math at the college level. Emphasis is placed on using mathematical concepts to solve practical application problems, such as compound interest, growth and decay, etc. Students will learn about graphing linear and quadratic equations, polynomials as well as rational, exponential, and logarithmic functions. Trigonometry topics include basic trigonometric ratios, radians as an angle measure, trigonometric functions and their graphs, trigonometric identities, trigonometric description of complex numbers and roots and powers of real and complex numbers. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

ONU PRE-CALCULUS CREDITS: 1

344

**GRADES: 10-12** 

Pre-Requisite: Algebra II & Geometry, meet ONU college credit plus requirements This is a college level class. ONU Pre-calculus is designed for the college bound student. This course will give the student the necessary background to succeed in math at the college level. Emphasis is placed on using mathematical concepts to solve practical application problems, such as compound interest, growth and decay, etc. Students will learn about graphing linear and quadratic equations, polynomials as well as rational, exponential, and logarithmic functions. Trigonometry topics include basic trigonometric ratios, radians as an angle measure, trigonometric functions and their graphs, trigonometric identities, trigonometric description of complex numbers and roots and powers of real and complex numbers. Students will earn 6 college credits. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

AP STATISTICS 350

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Algebra II

The purpose of Advanced Placement 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: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. The course prepares students for the AP test in the spring where college credit may be earned. Materials Needed: A TI-84 Plus calculator, notebook paper, graph paper, and pencil.

AP CALCULUS AB 351

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Pre-Calculus

Advanced Placement Calculus has three objectives. First, it is designed to both utilize and expand upon the algebraic and trigonometric concepts learned in Pre-Calculus and previous math courses. Second, it is to introduce the student to a rigorous study of both differential and integral calculus. Third, the objective of the course is to prepare students for the AP exam in May, which can qualify the student to receive college credit. Materials Needed: A TI-84 Plus calculator, notebook paper, and pencil.

MATHEMATICS THROUGH MODELING 355

CREDITS: 1 GRADES: 12

Pre-Requisite: Algebra II

In this course, problem based learning of mathematics in real life applications is emphasized. Students will gather and analyze data in order to build, use, and evaluate mathematical models of real situations and phenomena. Activities will involve the application of mathematical concepts and practices, as well as critical thinking, and problem solving skills. Activities will develop mathematical practices and will enhance understanding of, and facility with, topics from Algebra II, and select topics from geometry, statistics, and finance. Materials Needed: A TI-84 Plus calculator, notebook paper, binder, and pencil.

AP CALCULUS BC CREDITS: 1

GRADES: 12

352

353

Pre-Requisite: Calculus AB

The objective of this course is to prepare students for the AP exam given in May, which can qualify the student to receive up to two semesters of college calculus credit for major freshman physics. Since the exam may replace college Calculus I and II, the class itself will be taught on a rigorous and fast-paced level and should be taken by students planning to pursue a career in the mathematical sciences. Topics include limit calculus, differential calculus, integral calculus, infinite series and sequences, differential equations, and polar/parametric calculus. Materials Needed: TI-84 Plus calculator is required plus a workbook fee.

FINANCE & BANKING

CREDITS: 1 GRADES: 12

Pre-Requisite: None

The subject content is designed to provide students an opportunity to apply the math skills/concepts they have learned throughout high school to real life situations involving personal finance and investments. Topics include wages, taxes, loans, checking and saving accounts, budgeting, credit cards, insurance, transportation, and politics. This class does not meet the NCAA's standards for core Math and is not a college prep course. It is designed to meet State Financial Literacy requirements. Materials Needed: Notebook paper, scientific calculator, and pencil.

Students may decide to double up in science. Freshman students may double up Core Physical Science and Biology. Sophomore students may double up Biology and Chemistry. If sophomores want to double up Chemistry and Physics, they must currently be enrolled in Pre-Calculus. All science courses are one period long with the exception of Pre-AP Chemistry, AP Physics C, AP Chemistry, ONU Human Biology/ECC Anatomy and Physiology.

PHYSICAL SCIENCE 411

CREDITS: 1 GRADES: 9

Pre-Requisite: None

Core Physical Science addresses the state's ninth grade standards. The class will be taught in semesters and will involve a single class period five days a week. The first semester will focus on the basic chemistry topics such as physical/chemical properties, atomic theory, atomic structure, bonding, law of conservation, and nuclear chemistry. The second semester will focus on the basic physics topics such as reference point of view, motion, Newton's Laws, energy, and the transfer of energy. Materials Needed: 2" Three-ring binder, loose leaf paper, colored pencils, pencils/pens, highlighter, and calculator.

BIOLOGY 412

CREDITS: 1 GRADES: 9-10

Pre/Co-Requisite: Core Physical Science

Biology is a college prep level course designed to address the state's tenth grade standards and teach the fundamental principles of modern life science. Biology will include and expand upon basic concepts such as measurement, graphing, and laboratory procedures. The course will be taught on a pre-college level and will include the following topics: evolution, genetics and heredity, cell structure and function, ecology classification systems, and life processes. Materials Needed: Paper, pencil, spiral notebook, colored pencils, glue stick, three-ring binder, 5 binder dividers, and highlighter.

PRE-AP BIOLOGY 413
CREDITS: 1 GRADES: 9

Pre-Requisite: Recommendation of current Physical Science teacher Pre-AP Biology is an advanced college prep level course and is designed to prepare the student for AP Biology. The course is yearlong and will meet five periods a week. Basic science concepts such as measurement, graphing and lab practices will be reinforced. The bulk of the topics will include; but are not limited to the following: ecology/ecosystems, animal behavior, DNA, gene expression, cellular processes, genetics, and evolution. Materials needed: Paper, pencil, 3 ring binder, dividers, and paper.

CHEMISTRY & COLLEGE 101 422

CREDITS: 1.5 GRADES: 10-12

Pre-Requisite: Algebra I and Co-Requisite: College 101

Chemistry is a college prep level course designed to teach the fundamental concepts of matter, its properties and interactions. Basic science concepts such as measuring, graphing, and analyzing data will be reinforced. The bulk of the topics covered will include atomic theory and structure, the mole concept, states of matter, nomenclature, reactions stoichiometry bonding, acids and bases, and organic chemistry. Students will also take College 101. Materials Needed: Notebook, 1" three-ring binder, scientific calculator, pens, pencils, and paper.

### PRE-AP CHEMISTRY

CREDITS: 1 GRADES: 10

423

Pre-Requisite: Biology and Geometry

Pre-AP Chemistry is an advanced college prep level course and is designed to prepare the student for AP Chemistry. The course is a yearlong course and will consist of 10 periods a week. This course will take up two periods. Basic science concepts such as measuring, graphing, and analyzing data will be reinforced, along with an introduction to advanced problem solving. The bulk of the topics will include; but are not limited to the following: atomic theory and structure, the mole concept, states of matter, nomenclature, reactions, stoichiometry, bonding, electrochemistry, kinetics, equilibrium, and organic chemistry. Materials Needed: permanent page notebook, binder, graphing calculator, and pencils

PHYSICS 432

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Biology or Chemistry & Geometry

Physics is a college prep level course and is designed to teach the fundamental concepts of modern physics. The course is a yearlong course and will meet five periods a week. Basic science concepts such as measuring, graphing and analyzing data will be reinforced. The bulk of the topics covered will include forces, motion, energy, electricity, thermodynamics, light, sound, and atomic structure. Materials Needed: Notebook and scientific calculator.

### ECOLOGY/GENETICS 433

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Biology

This class is an advanced Biology class in which major topics of biology will be studied as a unified system. The class will be generally split between two major fields of biology: ecology and genetics. The ecology portion of the class will allow students the opportunity to be engaged in the macro and micro systems of the environment. The genetics portion of the class will allow students the opportunity to study the latest developments in genetics in the context of detailed biological systems with an emphasis on human genetics. Students should expect a variety of complex lab opportunities including field work (outside). Materials Needed: Notebook and old shoes.

BIO/ENVIRONMENTAL ENGINEERING 461

CREDITS: 1 GRADES: 10-12

Prerequisite: Biology

This course exposes students to two diverse fields of engineering. The bioengineering portion of the course will focus on applying engineering principles to biological systems. Some areas of study will include biomechanics, biomaterials, biotechnology, and related areas. The environmental engineering portion of the course will focus on essentials of renewable energy, transportation, and sustainable design. Students should expect a variety of projects, research, and labs. Materials needed: Notebook, pens, pencils

### **ENVIRONMENTAL SCIENCE**

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Physical Science & Biology

This class will cover topics involving the environment and how humans and the environment interact. Some prior exposure to topics in physical and life science will be important. There will be some simple math skills required as well. Topics covered include water and water resources, land and land management, biomes, earth processes, populations, biodiversity, atmosphere, energy, waste, and waste management. The school recycling program is a requirement of the class. It is 1/4 of the grade each quarter. Materials Needed: Notebook.

### ECC BIO 124 HUMAN BIOLOGY

458

431

458

**CREDITS: 1** 

**CREDITS: 1** 

**GRADES: 11-12** 

Pre-Requisite: Biology and meet college credit plus criteria for Edison CC. This is a college level class. Introduction to the human organism with emphasis on: 1) the organ systems, 2) the balance between systems, 3) practical health-related aspects of each organ system, 4) human genetics, 5) interaction with microbes, and 6) man's place in the ecosystem. Materials Needed: Paper, pencil, spiral notebook, colored pencils, glue stick, and highlighter.

### ONU BIO 1101 HUMAN BIOLOGY

450

**GRADES: 11-12** 

Pre-Requisite: Biology and meet college credit plus criteria for ONU. ONU Human Biology is a <u>college level course</u> designed to take the basic principles of cell structure and function and incorporate them into a working knowledge of the organ systems of the human body by using hands-on experiments and laboratory exercises to reinforce concepts presented in lecture. \*Students enrolling in this course can receive college credit through Ohio Northern University. If you have taken Anatomy and Physiology, you may NOT take ONU Human Biology. The course has a lab and will take two periods. Materials Needed: Paper, pencil, spiral notebook, colored pencils, glue stick, and highlighter.

### ECC 125/126 ANATOMY AND PHYSIOLOGY CREDITS: 1

459

**GRADES: 11-12** 

Pre-Requisite: Biology, Chemistry, and meet college credit plus criteria for Edison CC.

Anatomy and Physiology is a <u>college level course</u> designed to take the basic principles of cell structure and function and incorporate them into a working knowledge of the organ systems of the human body by using hands-on experiments and laboratory exercises to reinforce concepts presented in lecture. Includes the study of cells, tissues, and the following systems: integumentary, skeletal, muscular and nervous. If you have taken ONU Human Biology, you may not take Anatomy and Physiology. The course has a lab and will take two periods. Materials Needed: Paper, pencil, spiral notebook, colored pencils, glue stick, and highlighter.

### ECC OSA 151 MEDICAL TERMINOLOGY

CREDITS: 1 GRADES: 11-12

456

Pre-Requisite: Biology and meet college credit plus criteria for Edison CC. Prepares students to gain proficiency in word analysis to break down complex medical terminology, and relate the medical terms to the structure and function of the human body systems. Emphasis is placed on anatomy and physiology of the body systems, pathology, oncology, pharmacology, radiology and nuclear medicine. Students are coached with root words, combining forms, prefixes, suffixes, usage of words, spelling, pronunciation, and sample case studies to analyze medical situations as used by health care professionals. This is elective credit. Materials Needed: Lab fee, notebook, folder paper, pencil, and pen.

### ECC ALH 101 INTRO TO HEALTHCARE 457

CREDITS: .5 GRADES: 11-12

Pre-Requisite: Biology and meet college credit plus criteria for Edison CC. Introductory course for students in the allied health field. Introduces students to the medical profession, the health care team, health care settings, communication, professionalism, medical law and ethics, infection control and standard precautions. This is elective credit. Materials Needed: Lab fee, notebook, folder paper, pencil, and pen.

### AP BIOLOGY 451 CREDITS: 1 GRADES: 11-12

Pre-Requisite: Biology, Pre-AP Chemistry, & Algebra II or teacher recommendation

Biochemistry, bioenergetics, cytology, taxonomy, botany, zoology, molecular biology, genetics and ecology are studied in a college laboratory setting. The objective of this course is to prepare students for the AP exam in May, which can qualify the student to receive college credit. At least an hour of homework each night should be expected. Materials Needed: Paper, pencil, spiral notebook, colored pencils, glue stick, and highlighter.

### AP CHEMISTRY 452 CREDITS: 1 GRADES: 11-12

Pre-Requisite: Pre-AP Chemistry or teacher recommendation
Advanced Placement Chemistry is a second year chemistry course covering
more difficult material and in greater depth than Chemistry. The objective of
this course is to prepare students for the AP exam in May, which can qualify
the student to receive college credit. Since the exam may replace college
freshman chemistry, the class itself is taught on a college freshman level.
Topics include stoichiometry, nomenclature, equilibrium, kinetics,
thermodynamics, bonding, and atomic theory. This class will be two periods
long. Materials Needed: 1" three-ring binder, scientific calculator, pens,
pencils, and paper.

AP PHYSICS I

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Pre-AP Chemistry, Physics, and Algebra II or teacher recommendation

Advanced Placement Physics I is a second year <u>ALGEBRA-BASED</u> physics course covering more difficult material and in greater depth than first year physics. The objective of this course is to prepare students for the AP exam given in May, which can qualify the student to receive up to one semester of college lecture and lab credit for <u>non-major</u> freshman physics. Since the exam may replace college freshman physics, the class itself is taught on a college freshman level. More emphasis is placed on mathematical problem solving and critical thinking. Topics include forces, motion, energy, momentum, rotation, gravitation and oscillation, electrostatics, waves, and sound mechanics.

Materials Needed: A graphing calculator is required and lab fee. Three-part summer assignment is required.

ORGANIC CHEMISTRY

454

453

CREDITS: 1 GRADES: 12

Pre-Requisite: Pre-AP Chemistry & Physics and a Co-Requisite of AP Chemistry, AP Biology, or ONU Human Biology or teacher recommendation Organic Chemistry is an advanced chemistry course designed for students who are interested in the sciences. The topics to be covered will be chemistry within living organisms. Review of acids, bases, and boding. Survey of organic chemistry and biochemistry. Solutions, important types of organic molecules and selected reactions, structures, functions of carbohydrates, proteins, lipids, and nucleic acids. Materials Needed: 1" three-ring binder, scientific calculator, pens, pencils, and paper.

AP PHYSICS C CREDITS: 2

455

GRADES: 12

Pre-Requisite: Pre-AP Chemistry and Physics or teacher recommendation Co-Requisite: AP Calculus AB or AP Calculus BC and CP or AP English 12 Advanced Placement Physics C is a second year <u>CALCULUS-BASED</u> physics course covering more difficult material and in greater mathematical depth than first-year physics. The course combines a year-long credit of mechanics and a year-long credit of electricity and magnetism. The objective of this course is to prepare students for the AP exam given in May, which can qualify the student to receive up to two semesters of college lecture and lab credit for <u>major</u> freshman physics. Since the exam may replace college freshman physics, the class itself is taught on a college freshman level. This course will be taught at a rigorous and fast-paced level and should be taken by students planning to pursue a career in engineering, computer science, physics, or a related field. Topics include forces, Newtonian motion, energy, circuits, electric and magnetic fields, electrostatics, and electromagnetism. Materials Needed: A graphing calculator is required and lab fee. Three part summer assignment is required.

### **WORLD STUDIES** CREDITS: 1 Pre-Requisite: None World Studies is a general survey of the history of the world from the Age of Enlightenment to the present. The course will focus on the events and trends in both European and non-European cultures. Materials Needed: Three-ring binder, loose leaf paper, tabs, pencils, and pens.

### WORLD STUDIES COLLEGE PREP CREDITS: 1

Pre-Requisite: None

World Studies College Prep is a general survey of the history of the world from the Age of Enlightenment to the present. The course will focus on the events and trends in both European and non-European cultures. This course will cover more material than World Studies II. The tests and assignments are more difficult. Essays and journals are required, and there will be quarterly projects. Materials Needed: Pencils and notebook.

211

212

**GRADES: 9** 

**GRADES: 9** 

### **RESEARCH METHODS** 250 CREDITS: .5 **GRADES: 9-12**

Pre-Requisite: None

This course introduces and reinforces the major skills and methods of the academic research process. Topics covered include compiling research and the proper documentation of that research, advanced research skills, oral presentation techniques, and basic archives and records management. Independent research will serve two needs: first, the student investigates an area of special interest; and second, the student works closely with classmates in planning, executing and evaluating the research findings into a semesterlong project. Materials Needed: Three ring binder, dividers.

### SERVICE LEARNING 251

CREDITS: .5 **GRADES: 9-12** 

Pre-Requisite: None

This course serves as a focal point for teaching service, scholarship and action to improve the Piqua community. As part of the Service Learning class, students will have an opportunity to gain experience in planning, organizing and implementing an in-depth service learning project or fulfill a significant leadership role within the class itself. Students have multiple opportunities to complete personal development, professional development, and leadership workshops. As a result, students will gain a better understanding of the community around them and their place in it as an active community member. Materials Needed: Three ring binder, dividers.

## Social Studies

## Social Studies

U. S. STUDIES 221 CREDITS: 1 GRADES: 10

Pre-Requisite: None

The course focus will be on twentieth century America and events in the world that have shaped, altered, and turned the course of our development. Materials Needed: None.

U. S. STUDIES COLLEGE PREP CREDITS: 1 222 GRADES: 10

Pre-Requisite: None

The course focus will be on twentieth century America and events in the world that have shaped, altered, and turned the course of our development. Included will also be additional out of class work and projects. Materials Needed: Three-ring binder, loose leaf paper, tab binder dividers, and pencils/pens.

ONU US HISTORY 223

CREDITS: 1 GRADES: 10-12

Pre-Requisite: World Studies CP, meet college credit plus criteria for ONU. This is a college level course designed to survey U.S. history from the prehistoric period of North America to the present. Major themes and significant topics to be explored include the settlement of the North American continent, including the European explorations and the native people's responses and reactions to that contact; Colonial British North America; the war for American independence; early agricultural and industrial development; the issue of slavery; western expansion; and the American Civil War; American industrialization; America's involvement in foreign affairs; the World Wars and international conflicts; the Great Depression; the Civil Rights Movement; and contemporary issues. \*Students enrolling in this course can receive up to six college credits through Ohio Northern University. Could be taken for a semester per teacher approval. Students will go on a co-curricular study trip to Gettysburg as part of the course. Materials Needed: Three-ring binder, loose leaf paper, binder dividers, and pencils/pens.

INTERNATIONAL RELATIONS 252

CREDITS: .5 GRADES: 10-12

Pre-Requisite: None

International Relations will examine thought processes and geopolitical associations of sovereign and non-sovereign political states in the modern world. This course will investigate several theoretical approaches that try to categorize belief systems and functionality on the world diplomatic stage. Theories will include: causes of war, power, security and cooperation, dependence and interdependence, foreign policy, and the behavior of state and non-state actors in the international system. Special attention will be given to the development of United Nations policy since its inception in 1948. Students will have the opportunity to participate in the Model United Nations. Materials Needed: Three-ring binder, loose leaf paper, tab binder dividers, and pencils/pens.

### HISTORY OF ROCK AND ROLL

CREDITS: .5 GRADES: 10-12

263

Pre-Requisite: None

You will explore modern instruments, the recording industry, the evolution of popular and rock music, music and the media, and the role music plays in our society" (NHV curriculum guide). This course is designed to provide a historical perspective and insight into popular music of the twentieth century. Students will gain knowledge of rock and rolls roots, and will explore artists throughout the decades that have influenced the art form. Materials Needed: 3 ring binder with loose leaf paper, a notebook with a folder, pencil, and an open mind to all types of music.

GOVERNMENT 231

CREDITS: 1 GRADES: 11-12

Pre-Requisite: U. S. Studies

This course will help the learner understand the American political system, with emphasis on the national government's foundations, structure, and operation. Discussions will cover the role of politics, political parties, the Bill of Rights, public policies, public opinion, voting, and the election process. Materials Needed: None.

### AP/ONU GOVERNMENT AND POLITICS 233

CREDITS: 1 GRADES: 11-12

Pre-Requisite: U. S. Studies; if you want ONU credit, you must meet college credit plus criteria for ONU.

AP Government and Politics a college level course. It is designed to give students an analytical perspective on government and politics in the US and involves the study of general concepts used to interpret politics and the analysis of specific case studies. Topics covered in this discussion-oriented course include: constitutional underpinnings of the US government, political beliefs and behaviors, political parties and interest groups, institutions, and processes of the national government. Students will take the AP exam in the spring with the goal of obtaining college. Materials Needed: None.

ECONOMICS 253

CREDITS: .5 GRADES: 11-12

Pre-Requisite: None

Economics is a study of how individuals, businesses, and nations deal with the problem of scarcity, unlimited wants and limited resources (finances). How we deal with this to gain financial stability is called Economics. A student is encouraged to take this course to better understand how the economy works and to deal with their personal finances. Materials Needed: None.

MINORITY STUDIES 254

CREDITS: .5 GRADES: 11-12

Pre-Requisite: World Studies & U. S. Studies with a C or better This course is designed to expand a student's knowledge of U. S. history by exploring the experiences of African Americans. Must present to the class at least one PowerPoint presentation based on research for the course. Credit denied for failure to complete project. Materials needed: Pencils, notebook, Flash Drive, and working knowledge of PowerPoint.

## Social Studies

## Social Studies

PSYCHOLOGY 255

CREDITS: .5 GRADES: 11-12

Pre-Requisite: None

Psychology is the study of the factors and forces that shape the individual human being. In psychology, the student will study those things that make the individual human like and different from all other humans. Topics to be covered will include learning, development, personality, mental health and altered states of consciousness, and abnormal psychology. Psychology is approximately 60% lecture and discussion. Materials Needed: None.

CURRENT EVENTS 256

CREDITS: .5 GRADES: 11-12

Pre-Requisite: World Studies and US Studies

Current Events promotes student awareness of daily occurrences at the national and international level. Participation in classroom discussions will be strongly emphasized. Course may not be repeated for credit. In addition, a minimal fee may be charged for a limited subscription to a news magazine. Materials Needed: Pencil and notebook.

SOCIOLOGY 257

CREDITS: .5 GRADES: 11-12

Pre-Requisite: None

Sociology is a study of basic human motivation in group settings. The emphasis is on the study of the basic social institutions, cultures, minority relations, deviant and conformist behavior, socialization phases, and stratification. Three (3) project papers are required as part of this course. Materials Needed: None.

ONU SOCIOLOGY 258

CREDITS: .5 GRADES: 11-12

Prerequisites: Meet college credit plus criteria for ONU

This is a college level course. Students will learn the basic phenomena and processes of social life: culture, socialization, deviance, social institutions (family, economy, education, religion, and military), bureaucratization, collective behavior, social inequality, race, ethnicity, class, gender, and sexuality. Analysis of the interplay between the person and social groups. \*Students enrolling in this course can receive college credit through Ohio Northern University. Materials Needed: Three-ring binder, loose leaf paper, binder dividers, and pencils/pens.

LEADERSHIP DEVELOPMENT 264

CREDITS: .5 GRADES: 11-12

Pre-Requisite: None

This course provides opportunities to study, practice, and develop group and individual leadership and organizational skills. These skills include decision-making skills, problem-solving techniques, communication skills, leadership roles, human relation skills, and understanding the need for civic responsibility. Students enrolled in the course will apply these skills in dealing with peers, school administration, and the community. This is elective credit only.

Materials Needed: Folder, notebook, pens/pencils.

### AP WORLD HISTORY CREDITS: 1

261 GRADES: 11-12

Pre-Requisite: World Studies CP & completion of summer assignment. This is a college level course. This course will cover broad themes dating back from 8,000 B.C.E. to the present. The themes that will be studied are interaction between humans and the environment; development and interaction of cultures; state-building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. The intense study of this course will look to examine these broad themes, as opposed to more detailed study of individuals and events. Students completing this course will also be required to participate in History Day projects. By studying AP World History, the student will take the AP exam in the spring with the goal of obtaining college credit for work completed in high school. Materials Needed: Pencil, notebook, and three-ring binder.

### AP MACROECONOMICS CREDITS: .5

262

**GRADES: 11-12** 

Pre-Requisite: Economics & Algebra II

The course is designed to give students an intense study of macro issues and application to current economic events. Macroeconomics is the study of aggregate demand, aggregate supply, income/expenditure, and national policies dealing with fiscal and monetary policies, business cycle theory, employment theory, international market theories, and the globalization of the world economy. The course follows the AP outline and will prepare students to take advantage of AP exam opportunities. AP macroeconomics provides an excellent opportunity for the student entering the fields of business, accounting, and finance. Students will be expected to take the AP exam in May. Materials Needed: None.

## Social Studies

### Art

ART I: INTRODUCTION TO ART

CREDITS: 1 GRADES: 9-12

Pre-Requisite: None

A PRE-REQUISITE FOR ALL OTHER ART CLASSES. This is an introductory class into the study of professional art. Projects will focus upon realism, basic composition, value, color theory, and the overall quality of individual artwork. The purpose of this class is to build skills in design as well as developing a strong work ethic. This is perfect preparation for those wishing to continue the study of art as well as demonstrating the importance visual art has within our lives. Students will learn to find deeper meaning and purpose behind historical works of art as well as within their own creations. This is a serious subject. There will be reading, writing, and tests. This is also an important foundation class for all students who have a common respect and curiosity about the world of professional art and their future place within it. Materials Needed: Pencil, eraser, colored pencils, and sketchbook.

750

ART II: DRAWING/PAINTING 751

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Art I: Introduction to Art

An advanced level art course focused upon the fine art of drawing and painting. Drawing skills will be strengthened and unfamiliar techniques and color theory introduced. This class will focus heavily upon realism, proportion, composition, elements of light, and the overall quality of the artwork. Expectations are set high. Students must work to surpass all basic requirements as well as meet every deadline. They will learn how to better express their ideas and technical knowledge behind their projects both verbally and in written form. Basically, in this class, students will begin to draw and paint and talk and think just like the professionals. At the conclusion of this class, students will make an easy transition into Art III: Studio Art class. Materials Needed: Sketchbook.

ART III: STUDIO ART 752

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Art II: Drawing/Painting

A fast paced art course geared towards the serious art student. This class will help the former Art II: Drawing/Painting student transition into an excellent top-level future AP Art student. This is the course where students will begin to build a portfolio for college. Expectations are always set high for the encouragement of outstanding quality work. Students will continue to focus upon realism and precision throughout various art projects in class as well as work with a diverse amount of art mediums available. They must meet all deadlines and exceed the basic requirements given per project. Each student will strengthen his/her ability to express ideas and technical knowledge behind the projects both verbally and in written form. Studio Art students will work alongside the AP Art students as they learn how to develop a personal style with top quality design and technique. Essentially, most of the junior year artwork created in this class will become portfolio pieces added to their senior year AP Art work. Materials Needed: Sketchbook, pencil, and eraser.

Art

ONU/AP STUDIO ART: 2 D DESIGN/DRAWING 753
CREDITS: 1 GRADES: 12

Pre-Requisite: Art III: Studio Art; if you want ONU credit, you must meet college credit plus criteria for ONU

This is the fast paced, top level art course geared towards the serious art student. Expectations are set high to ensure superior quality work. Students are required to complete various art projects in class, meet deadlines, and exceed the basic requirements given per project. Each student will continue to strengthen his/her ability to express ideas and technical knowledge behind the projects both verbally and in written form. The main goal of this course is to prepare and provide each and every student with an obtainable opportunity to go to college. This portfolio may be used for admission into college as well as various scholarship competitions into his/her college or art school of choice. In addition to regular class work, all AP Art students are expected to do research and develop their own projects outside the art room in the form of a "concentration". An AP Art student needs to apply the tools learned in class and create his/her own art projects outside of class. These projects will also be included within the final portfolio due at the end of his/her senior year. Through AP testing, this course also provides a fantastic opportunity to receive college credit. Materials Needed: Sketchbook, pencil, and eraser.

PHOTOGRAPHY 754
CREDITS: .5 GRADES: 10-12

Pre-Requisite: Art I: Introduction to Art

This course will teach the basic fundamentals of black and white photography. There will be a strong focus upon composition, construction of ideas, quality, and the overall history surrounding this medium. Everyone will be expected to take photographs outside of class and will also be expected to process film and develop prints in the darkroom during class time. Students must provide their own supplies, including a 35mm camera as well as black and white film (T-Max 400 or Tri-X 400). This is a serious subject. There will be reading, writing, and tests. Deadlines will be enforced. Therefore, only motivated students interested in learning about photography should attend. Materials Needed: Two rolls of black and white film and one pack of photo paper.

CERAMICS 755 CREDITS: .5 GRADES: 11-12

Pre-Requisite: Art I: Introduction to Art

Students will complete a progressive series of projects that will promote exploration of the traditional building techniques in ceramic work. The vast range of ceramic techniques currently available to the contemporary ceramic artist will be presented. Course work will include the history of ceramics. Firing, glazing, and surface decoration techniques will be taught. Students must meet deadlines to reach performance goals that will culminate in a series of finished ceramic pieces including both functional and non-functional work. It is mandatory that students work outside of class to meet performance, reading, research, and report requirements. Materials Needed: Sketchbook.

MEDIA I 500

CREDITS: .5 GRADES: 9-12

Prerequisites: None

Develop media literacy and basic knowledge of visual tools and computer software used in public media (television broadcast production and performance). Study principles and elements of basic video shooting, performance, production, and digital art. Plan, write, perform, record, edit, and revise student productions. In addition, work will be required outside of class time. This course is for elective credit only. Materials Needed: Flash drive.

MEDIA II 501

CREDITS: .5 GRADES: 9-12

Prerequisites: B average in Media I, dedication to the program, & teacher approval

Media II is the second semester course with the objective of enhancing skills, such as video animation, and production quality, for those associated with Media I. This course is for elective credit only. Materials Needed: Flash drive.

502

DIGITAL MEDIA MARKETING

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Media I with a C or better, teacher approval Digital Media Marketing will incorporate marketing techniques along with media technology to promote the students, Piqua City School District, and Piqua Community. Students will use different resources such as social media (twitter, Instagram), video production equipment (Apple computers, cameras, Final Cut Pro), website design, and graphic design for various projects. Throughout the course students will be assigned athletic teams, school organizations, clubs, and events and businesses in the community to market to the public. Materials Needed: Flash drive, notebook, and pencil/pen.

MICROSOFT SUITE I 600

CREDITS: .5 GRADES: 9-12

Pre-Requisite: None.

In this course students will begin with a short 2 week review of Keyboarding & Information Processing. Students will then move to Microsoft Office Word where they will concentrate on creating and editing word documents, creating cover letters and a resume, and creating a research paper. The final part of the semester will be introduction to Excel. Basic concepts of spreadsheet creation and use. Using spreadsheet software students learn spreadsheet structure, the entry of values and labels, creating formula and function entries, file manipulation and the printing of reports. Materials Needed: Paper and pencil/pen.

### ECC MICROSOFT SUITE I

CREDITS: .5 GRADES: 9-12

Pre-Requisite: Meet college credit plus requirements for Edison CC. This is a college level class. Basic principles of word processing are introduced. Using software packages students learn document creation, editing, formatting and printing along with file manipulation and word processing features such as the use of spell check. Introduces the basic concepts involved in the creation of presentation graphics. Using graphics software students learn the creation, manipulation and display of presentation graphics. Students also learn how to combine text and graphics into complex presentations. Materials Needed: Paper and pencil/pen.

### ECC MICROSOFT SUITE II CREDITS: .5

601 GRADES: 9-12

610

Pre-Requisite: Meet college credit plus requirements for Edison CC. This is a college level course. Basic concepts of spreadsheet creation and use. Using spreadsheet software students learn spreadsheet structure, the entry of values and labels, creating formula and function entries, file manipulation and the printing of reports. Using database software students learn the basic concepts related to database management. Database structure, record creation and editing, and the production and printing of reports, and file manipulation are presented. Materials Needed: Paper and pencil/pen.

### ECC DESKTOP PUBLISHING

602

CREDITS: .5

**GRADES: 9-12** 

Pre-Requisite: Meet college credit plus requirements for Edison CC. This is a college level course. Creativity is key! In this course you will be inspired to compose announcements, advertisements, menus, order forms, business cards, newsletters, brochures, posters, flyers, letterheads, place mats, magnets, punch cards, gift certificates, bumper stickers, and business logos by creating, editing, and applying text and graphics from different applications. Students will be encouraged to practice basics of creativity, balance, and design while integrating word processing, graphics, and page assembly. Materials Needed: Paper and pencil/pen.

### ECC WEB DESIGN

603

CREDITS: .5

**GRADES: 9-12** 

Pre-Requisite: Meet college credit plus requirements for Edison CC. This is a college level course. Have you ever wanted to create your own website? Here is your chance! Web Design will teach you a step-by-step process using the most up-to-date Studio 8 version of Dreamweaver and Flash. You will learn design elements such as text, tables, buttons, and images! Take this class to tap into your creative side through designing a web site! Materials Needed: Paper and pencil/pen.

### INTRODUCTION TO BUSINESS

CREDITS: .5 GRADES: 9-12

Pre-Requisite: None

This course is a broad overview of the functions of business as it relates to our environment, finances, technology, advertising, organization and management as applied by "real world" businesses. The Virtual Business interactive program, which is an essential part of this class, allows you to open, manage, solve real world problems and operate a business of your own. Students will have control over pricing, promotion, merchandising, market research, and ad design. Additionally students will be asked to solve problems associated with competitors, shoplifting and expired goods. Materials Needed: Notebook and pencil/pen.

### ECC INTRODUCTION TO BUSINESS

611 GRADES: 9-12

604

CREDITS: .5

Pre-Requisite: Meet college credit guidelines for Edison CC.

This is a college level class. This course is a broad overview of the functions of business as it relates to our environment, finances, technology, advertising, organization and management as applied by "real world" businesses. The Virtual Business interactive program, which is an essential part of this class, allows you to open, manage, solve real world problems and operate a business of your own. Students will have control over pricing, promotion, merchandising, market research, and ad design. Additionally students will be asked to solve problems associated with competitors, shoplifting and expired goods. Materials Needed: Notebook and pencil/pen.

### ECC ACCOUNTING

605

CREDITS: .5

GRADES: 9-12

Pre-Requisite: Algebra I, meet college credit guidelines for Edison CC. This is a college level class and is important for college bound business majors. Application of accounting procedures including organization of ledgers, accounts, journals, financial statements, management of cash, inventories, proprietorships, partnerships, and corporations, including plant assets, depreciation, current liabilities, stockholders equity, long-term obligations and financial statement analysis. Materials Needed: Calculator, pencils, and folder.

### PERSONAL FINANCE CREDITS: .5

606 GRADES: 9-12

Pre-Requisite: None.

This class is a commerce and personal financial tool which relates specifically to students needs today and in the future regarding topics of budgeting, implications of scarcity, value, inventory control, credit cards, building wealth, money and capital, profits and motivation, student loans, debt management, and insurance and investments. Students will be introduced to the foundations of finance and the role, credit, savings, investments, business and consumer responsibilities play in their personal lives and the Free Enterprise economy. Business partnerships will be developed with financial service institutions (banks, credit unions, etc.), field trips and work-based learning activities. Materials Needed: Paper and pencil/pen.

### ECC PERSONAL FINANCE CREDITS: .5

CREDITS: .5 GRADES: 9-12

Pre-Requisite: Meet college credit guidelines for Edison CC. This is a college level class. This class is a commerce and personal financial tool which relates specifically to students needs today and in the future regarding topics of budgeting, implications of scarcity, value, inventory control, credit cards, building wealth, money and capital, profits and motivation, student loans, debt management, and insurance and investments. Students will be introduced to the foundations of finance and the role, credit, savings, investments, business and consumer responsibilities play in their personal lives and the Free Enterprise economy. Business partnerships will be developed with financial service institutions (banks, credit unions, etc.), field trips and work-based learning activities. Materials Needed: Paper and pencil/pen.

612

### ECC INTRODUCTION TO MARKETING 607 CREDIT: .5 GRADES: 9-12

Pre-Requisite: Meet college credit plus requirements for Edison CC. This is a college level course. Introduction to the basic concepts and activities of marketing, including the role and characteristics of the consumer, and an overview of the elements of the marketing mix, including the marketing product, promotional activities, pricing, and distribution. Basic marketing terms are introduced, along with experiential exercise in observing marketing activities in actual settings outside the classroom. Materials Needed: Notebook and pencil/pen.

### SPORTS ENTERTAINMENT MARKETING 609

CREDITS: .5 GRADES: 9-12

Pre-Requisite: None

In this course you will explore the intriguing and exciting world of sports and entertainment from the perspective of marketing and management. Topics dealing with college and amateur sports, professional sports, and the process of managing for success will be covered. The Virtual Business interactive simulation, which is an essential part of this class, is used to address ticket pricing, stadium staffing, booking and promoting concerts, concession sales, sponsorships and parking for revenue. Materials Needed: Paper and pencil/pen.

# Family Consumer Sciences

Family and Consumer Science courses help students develop skills for life. The courses feature a hands-on approach to learning life skills in a fun and lively manner. Students enrolled in Family and Consumer Science courses also have the opportunity to participate in FCCLA (Family, Career and Community Leaders of America) which focuses on community service both in and beyond the classroom. The Family and Consumer Science program is a satellite of the Upper Valley Career Center.

PERSONAL FINANCIAL MANAGEMENT 551

CREDITS: .625 GRADES: 9-12

Pre-Requisite: None

Because today's teens will be required to be more financially responsible than previous generations, students in this course will develop attitudes and skills to achieve personal financial wellness. Key components of the course will address income and financial decisions based on personal values, paychecks and taxes, savings and spending plans, using credit wisely, insurance needs, and avoiding financial fraud. Understanding these topics now will help you achieve personal financial wellness and success in your future. FCCLA is incorporated into this course. Materials Needed: 3-ring binder. Fee: \$20.00

CHILD DEVELOPMENT 552

CREDITS: .625 GRADES: 9-12

Pre-Requisite: None

Child Development is designed to help you acquire knowledge and skills essential for the care and guidance of children as a caregiver or parent. In this course, you will learn about the physical, social, emotional, and intellectual growth and development of children. Emphasis is on helping you create an environment for children that will promote optimum development. Infant CPR certification and the Baby-Think-It-Over are essential components of the course, and FCCLA is incorporated. Topics/activities include: the qualities and skills needed to parent or care for children, prenatal development, the birth process and infant care, child development theories, preschool and child care options, and responsibilities of parenthood. Materials Needed: 2" three-ring binder, loose leaf paper, blue or black pen, and pencils. Fee: \$13.00 + cost of Infant CPR Certification

HEALTHY AND SAFE FOODS (FOODS I) 553

CREDITS: .625 GRADES: 10-12

Pre-Requisite: None

Forming good eating habits is important throughout your entire lifespan because choosing and eating the right foods can affect your weight, health, and nutrition. In this course, you will analyze your own eating habits as you learn to choose, prepare, and cook healthy foods. While doing so, you will work safely in the kitchen to avoid cross-contamination and food borne illnesses to ensure that the foods you prepare are safe to eat. You will use recipes, work plans, preparation techniques, and cooking methods appropriately to be successful in the kitchen. The food and physical habits that you follow can be positive or negative, but this course will help you create a plan for a healthy life. FCCLA is incorporated into this class. Materials Needed: Three-ring binder. Fee: \$30.00

### HEALTHY LIVING (FOODS II)

CREDITS: .625 GRADES: 10-12

554

555

Pre-Requisite: Healthy & Safe Foods

This course, otherwise known as Foods II, will cover the advanced principles of nutrition for a healthy life style and practice food preparation for day to day living. You will learn about social and cultural factors that influence choice you will make to sustain life. You will evaluate restaurant menus and nutritional information on packaging. You will assess factors associated with body weight to help gain information to guide food and exercise choices. You will learn to evaluate consumer and industry food-related practices which sustain the environment. FCCLA is incorporated into this class. Topics/activities include: advanced food preparation, safe food handling techniques, food patterns, body weight factors, diseases related to nutrition, and social and cultural influences on foods. Materials Needed: 2" three-ring binder, loose leaf paper, blue or black pen, and pencils. Fee: \$30.00

CAREER PLANNING

CREDITS: .625 GRADES: 9-12

Pre-Requisite: None

Personal life choices made now and throughout life, in many ways, determine one's quality of life. In this course, you will analyze and document personal interests, talents, skills, aptitudes, and values in relation to career options. Students will develop, implement, and continually revise a career blueprint with regard to life choices, changing employment trends, societal needs, and economic conditions. This blueprint will include educational plans of your personal and career goals including job shadowing a professional in your desired career field. You will develop core employability skills needed to succeed in school and in the workplace. FCCLA is incorporated into this class. Materials Needed: Three-ring binder, Fee: \$18.00

# Family Consumer Sciences

# Health and Physical Education

HEALTH 850

CREDITS: .5 GRADES: 9-10

Pre-Requisite: None

Topics covered will include nutrition, diet, fitness, drugs, alcohol and tobacco, drug abuse prevention, mental disorders, suicide, sexually transmitted diseases, conflict management, and disease prevention and control. Materials Needed: Three-ring binder, loose-leaf paper, and pencils/pens.

851

ONU ATHLETIC TRAINING

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Biology, health, and meet college credit plus criteria for ONU. This course is designed to provide students with information pertaining to careers in the Sports Medicine field as related to athletic training. This course is geared towards students who may have an interest in pursuing a career in any health-related field. Students will study anatomy, physiology, and kinesiology as related to injury prevention, evaluation, treatment, and rehabilitation. Other topics will include nutrition, therapeutic use of heat and cold, taping/bracing and other selected topics including careers in the Physical Therapy field. The class will have both a lecture and a lab component. Materials Needed: Notebook, folder, pens, and pencils.

WEIGHT LIFTING 853/854/855/856 CREDITS: .125 GRADES: 10-12

Pre-Requisite: Instructor recommendation

This course is offered as an option for one of the student's two required courses. This course is designed to enhance the skill levels of varsity athletes both in and out of season. The class is also open to other students, and they are required to meet with the instructor prior to enrollment. The quarter-long class focuses on total body development, speed training, and flexibility. The class is designed to mirror the varsity sport seasons. The work-outs will be computer generated and results will be monitored as a grade determinate. The course is open to both males and females and may be taken more than once for additional elective credit. Materials Needed: None

ECC CARDIO KICKBOXING 857

CREDITS: .25 GRADES: 9-12

Pre-Requisite: None

Traditional Kickboxing moves and boot camp drills then end with a core workout to strengthen your midsection. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

ECC SPORTS AGILITY 858

CREDITS: .25 GRADES: 9-12

Pre-Requisite: None

Participate in fun and challenging exercises emphasizing strength, coordination, core stability, balance, and cardiovascular endurance geared towards sports and agility training. Hurdles, ropes, agility ladder, and bosu ball will be used to increase balance and coordination. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

### ECC HIP HOP ABS

CREDITS: .25 GRADES: 9-12

859

860

Pre-Requisite: None

A fun cardio workout utilizing the latest hip hop dance moves. No dance experience necessary. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

**ECC YOGA/PILATES** 

CREDITS: .25 GRADES: 9-12

Pre-Requisite: None

Body conditioning combining flexibility, strengthening & balancing into one energizing workout. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

ECC ZUMBA 861

CREDITS: .25 GRADES: 9-12

Pre-Requisite: None

ZUMBA routines feature aerobic fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. You do not need to know how to dance. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

ECC HIGH INTENSITY INTERVAL TRAINING 862

CREDITS: .25 GRADES: 9-12

Pre-Requisite: None

An exercise strategy intended to improve performance with short training sessions. HIIT is a form of cardio which is beneficial to burn fat in a short and intense workout. Students will earn 1 college credit for participating in this course. Materials Needed: Change of clothes

# lealth and Physical Education

### Music

WOMEN'S CHORUS 800

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Audition

Open to female students to provide an initial high school choral experience. Emphasis is on vocal skill development and public performance experience. Concert attendance is mandatory. OMEA district and state contests require additional time outside of school day. Materials Needed: Correct concert attire and \$15 robe rental/cleaning fee.

MEN'S CHORUS 801

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Audition

Open to qualified male voices to provide a choral experience for the beginning to advanced singer. Emphasis is on advanced vocal skill development and public performance. Concert attendance is mandatory. OMEA district and state contests require additional time outside of school day. Materials Needed: Correct concert attire and \$15 robe rental/cleaning fee.

CONCERT CHOIR 802

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Audition

Open to qualified students to provide an advanced mixed-choir experience. Emphasis is on advanced vocal skill development, exploration of traditional and contemporary choir literature, and public performance. Concert attendance is mandatory. OMEA district and state contests require additional time outside of school day. Materials Needed: Correct concert attire and \$15 robe rental/cleaning fee.

SHOW CHOIR 803

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Audition

Show Choir provides a development of vocal, instrumental, dance, and dramatic presentation skills through public performance of contemporary literature. Costume and accessory fees as well as a commitment to public performances and a rigorous competition schedule are mandatory for class membership. Show Choir performance season includes second and third grading periods. A student may not be a member of Winter sports from November 15 through March 15. Must attend show choir camp in the summer. Materials Needed: None.

SHOW CHOIR COMBO/JAZZ BAND 805

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Audition

Show Choir Combo provides for development of instrumental skills through public performance of contemporary literature. Costume and accessory fees as well as a commitment to public performance schedule are mandatory for class membership. Show Choir performance season includes second and third grading periods. A student may not be a member of Winter sports from November 15 through March 15. Wind and percussionists are expected to participate in concert or symphonic band unless a scheduling conflict exists. Materials Needed: None.

### Music

### MARCHING /SYMPHONIC BAND CREDITS: 1

Pre-Requisite: Instructor recommendation

The "Pride of Piqua" Marching Band is a nine-week class that meets during the last period of the school day. Symphonic Band will start following the conclusion of football season and continue for the remainder of the year. The marching band holds rehearsal during the summer months and after school during the football season. The "Pride of Piqua" is a performance-based group and performs at all football games, several contests, parades, festivals, and community events from August to November. Accessory fees and a commitment to a public performance schedule is mandatory for membership. Music performed by the ensemble includes: pop, rock, jazz, Broadway show tunes and classical. Membership in the marching band is open to any Piqua High School student with prior band instrument experience. However, new students are encouraged to join the band and should contact the director for information. Band members will be assigned to a pep band during the second and third quarter as part of their performance requirement. Materials Needed: None.

804

806

**GRADES: 9-12** 

### MUSIC APPRECIATION

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Instructor recommendation

This class can easily be paired with Intro to Music Theory. The class will focus on form and style periods and be geared to aid those students who wish to take the AP Music Theory exam. The exam covers many musical elements that coincide with music appreciation. This semester course will review various periods of music history, different styles of music, and the artists associated with these periods and style. The student will complete both in-class and out-of-class projects. This is not a performance class. Materials Needed: Notebook and pencil.

### INTRO TO MUSIC THEORY 807

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Instructor recommendation

This semester course is designed to give a comprehensive overview of the basics of Music Theory. Note names, staff reading and notation, scales, intervals, and triads will be covered at length in the course. The goal of this class is to get those students who are interested in taking AP Music Theory all on the same page and ready to go for summer assignments. If you are not interested in AP it will also be a good introduction to the basic elements of music. It is suggested to have some music background and be able to read music prior to this course. This class can easily be paired with Music Appreciation for a full year of credit. This class is a prerequisite for the AP Music Theory class. Materials Needed: 2" 3-ring binder and pencil.

### Music

**AP MUSIC THEORY CREDITS: 1** 

808

**GRADES: 11-12** 

Pre-Requisite: Two years of participation in a performing ensemble at Piqua High School or equivalent. Completion of Introduction to Music Theory course with a final grade of "B" or higher, and instructor recommendation.

AP Music Theory is offered to serious music students who are interested in using the knowledge of how music is composed and structured as means to become a better musician. The course is designed to follow the typical first year music theory and ear training curriculum at a four year college and to prepare students to take the AP Music Theory examination. Materials Needed: 2" three-ring binder, #2 mechanical pencils (no pen), a separate gum eraser, and a 1GB flash drive.

### EXPLORING TECHNOLOGY I CREDITS: .5 Pre-Requisite: None Exploring Technology introduces students to a broad statistical disciplines. These technologies may become of interest

Exploring Technology introduces students to a broad spectrum of engineering disciplines. These technologies may become of interest as a future career choice. There are twelve modules in the program. Six are studied during the first semester (Exploring Technology I) and the remaining six during the second semester (Exploring Technology II). Technologies studied are CAD/CAM, Machine Trades, Robotics, Plastics, Engineering Stresses, Artificial Intelligence, Fiber Optics and Lasers, Computer Graphics, Fluid Power, and Residential Design. Materials Needed: Notebook, folder, and pens/pencils.

504

505

**GRADES: 9** 

### EXPLORING TECHNOLOGY II

CREDITS: .5 GRADES: 9

Pre-Requisite: Completion of Exploring Technology I

This course is the completion of Exploring Technology I. In addition to the modules listed above, students will have teaming exercises designed to acquaint them to real world mock customers. Everything from public relations, design, specifications, environmental issues, product quality and financing; all from an engineer's perspective. Materials Needed: Notebook, folder, and pens/pencils.

### RESEARCH & DEVELOPMENT I 650A CREDITS: 1 GRADES: 9-12

Pre-Requisite: Algebra I

Research and Development in Science is an introductory course for students interested in careers in the science, technology and engineering fields. Students will participate in hands on activities that will utilize the many different concepts that are taught in traditional science courses, while utilizing new concepts used with engineering. The focus will be on water robotics. Materials Needed: Notebook, folder, and pens/pencils.

### RESEARCH & DEVELOPMENT II 650B

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Algebra I

Students will be allowed to explore their own interests as well as general scientific principles and pick from a variety of hands on and academic events that cover various scientific skill, reasoning and knowledge. Examples of class activities include Tower Building, Solar and Wind Energy. Students may take this course for multiple credit. Materials Needed: Notebook, folder, and pens/pencils.

### COMPUTER INTEGRATED MANUFACTURING 656

CREDITS: 1 GRADES: 10-12

Pre-Requisite: None

In this course, students will be introduced to all aspects of computer-integrated manufacturing. They will learn about robotics and automation, manufacturing processes, computer modeling, manufacturing equipment, and flexible manufacturing systems. Materials Needed: Notebook, folder, and pens/pencils.

## Pre-Engineering

## Pre-Engineering

ROBOTICS 651

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Research and Development or Geometry and Instructor Approval Robotics will build upon the ideas and concepts of Robotics learned in Research and Development. Students will create both autonomous and controlled robots to perform a variety of tasks. Students will utilize the Lego MINDStorms as well as the TETRIX Systems. Students will learn how to program their robots using Java Programming Language in preparation for future computer science programming courses. Materials Needed: Notebook, folder, and pens/pencils.

GAME DESIGN 652

CREDITS: .5 GRADES: 10-12

Pre-Requisite: Algebra II and Instructor Approval

Game Design is an introductory course into the virtual world of game design. Students will build their own virtual layouts and program simulations within it through the use of a game engine and a given source code. Students will utilize their knowledge of technology and mathematics to map out a real world space and duplicate it into a virtual format. Materials Needed: Notebook, folder, calculator and pens/pencils.

ENGINEERING DESIGN 653

CREDITS: 1 GRADES: 10-12

Pre-Requisite: None

The focus of Engineering Design is the application of the engineering design process. Topics include work-processes, optimization methods, design optimization, and risk management tools. Students will use 2D and 3D modeling software to help them design solutions to solve proposed problems, document their work, and communicate solutions. Additionally, students will interpret industry prints and create working drawings from functional models. Emphasis is given to experimental problem solving in real systems. Materials Needed: None.

MECHANISMS AND DRIVES 506

CREDITS: 1 GRADES: 10-12

Pre-Requisite: None

Students will learn the principles and practices of machine operation and machine applications. Students will learn how machine components such as gears, belts, sprockets, bearings, clutches, couplings, springs, etc. contribute to the application for which the machine is designed. They will also examine the basic drives of such mechanisms as electric motors and hydraulic & pneumatic actuators. Students will compete in battle bots competitions.

ELECTRONICS 655

CREDITS: .5 GRADES: 11-12

Pre-Requisite: Pre-calculus or functions and analysis

Students will explore the fundamentals of alternating and direct current in the context of changing technological advances. Basic electrical circuits and electronic components will be studied and utilized in the laboratory. Materials Needed: A TI-84 Plus calculator.

MENTORING CREDITS: .5

900A/B GRADES: 9-12

Pre-Requisite: Instructor approval and application.

This course provides a unique opportunity for the learner to assume the role of a student mentor to work with same-age disabled peers. Students will gain knowledge of different handicapping conditions and will interact with the students using modified learning task materials. Students must complete assignments, be a positive role model, and accompany the class on a community outing. More importantly, this class facilitates appreciating the similarities between themselves and the disabled. Class size is limited and all students will be subject to a two-week trial period. Materials Needed: None.

### CAREER CONNECTIONS CREDITS: 1

901

GRADES: 9-10

Pre-Requisite: Teacher/Counselor Recommendation

Career Connections is a class for students who are interested in preparing for future employment opportunities. Students will be introduced to job seeking skills, career exploration, life skills, and work ethics. This program is under the supervision of the Upper Valley Career Center. Materials Needed: (1) 2 inch three-ring binder with pockets, (1 set) 5 tab binder dividers, (1) pack of #2 pencils, and (2) yellow highlighters.

### CAREER BASED INTERVENTION CREDITS: 4

902 & 903 GRADES: 11-12

Pre-Requisite: Teacher/Counselor recommendation, Application, and Interview Career Based Intervention (CBI) is a program for students 17-19 years of age, or in the 11th or 12th grade and is designed to help students with barriers to career and academic success improve academic competencies, graduate from high school, develop employability skills, implement a career plan, and participate in a career pathway in preparation for postsecondary education and careers. CBI students attend school periods 1-6 and co-op (work/volunteer) during periods 7 & 8. They must have instructor approved transportation to their work/volunteer site and must work/volunteer a minimum of fifteen hours per week. Students are encouraged to have employment/volunteer sites secured prior to the start of the school year. Volunteer sites must be located at a not-forprofit organization and employment sites must be in a recognized business. Students are also required to take a special interest in their attendance habits. If they don't report to school...then they don't report to work and this can cause failure in the CBI program. While most CBI jobs are semi-skilled and pay is usually minimum wage, students benefit from being on the job daily and developing good work habits. This program is under the supervision of the Upper Valley Career Center. Materials Needed: (1) 2 inch three-ring binder with pockets, (1 set) 5 tab binder dividers, (1) pack of #2 pencils, and (2) yellow highlighters.

## **Technical**

## World Languages

CHINESE I 701

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Recommended C average in English, or a written recommendation from a teacher, parent, or counselor

This course is an introduction of the Chinese language and culture. Students will acquire basic vocabulary and carry on a simple conversation in Chinese over topics such as their name, age, family members, time, sports, food, etc. Students will focus on speaking, while exposed to Chinese characters. This program will emphasize communicating in Chinese as well as cover knowledge about traditional culture. Materials Needed: None.

CHINESE II 702

CREDITS: 1 GRADES: 10-12

Pre-Requisite: Chinese I with a C average in the second semester or a recommendation from a Chinese teacher

This course will include a continuation of the study of vocabulary and conversation. Reading and listening skills will be further developed through practical topics. The students will be able to write an article about their daily life. Use of Chinese characters will be expected. Students will use the present, past, and future tenses throughout the year. A deeper understanding of Chinese culture will be emphasized. Materials Needed: None.

CHINESE III 703

CREDITS: 1 GRADES: 11-12

Pre-Requisite: Chinese II with a C average in the second semester or a recommendation from a Chinese teacher

This course is for students who want to seriously work towards mastering the Chinese language through reading, writing, speaking, and listening. A more advanced approach to all topics is taken. Students will use new vocabulary and sentence patterns, as well as, reading and translation to master the language. There will be more focus on character writing and speaking where students form short stories using vocabulary and given phrases. Students will be able to incorporate the present tense, as well as, the past and future tenses. A more in depth focus will be taken on traditional Chinese culture. Materials Needed: None.

FRENCH I 711

CREDITS: 1 GRADES: 9-12

Pre-Requisite: Recommended C average in English or a written recommendation from a teacher, parent, or counselor

French I presents the vocabulary and grammar needed for basic oral and written communication in French. Students will be able to carry on a simple conversation in French over topics such as name, age, and weather. They will be able to ask the time, order in a restaurant, etc. Our program uses up-to-date videos shot on location in France to acclimate students to authentic accent and usage, as well as introduce them to French culture and geography. The smart board listening access through the online textbook component helps students build oral comprehension. Materials Needed: Folder, paper, pencil, and pen.

FRENCH II CREDITS: 1 712

GRADES: 10-12

Pre-Requisite: French I & recommended minimum C average in the second semester of French I or recommendation from a French teacher French II continues to increase the students' vocabulary and grammar skills while exposing them to a significant number of beginning readings in French, along with simple sentence structure and paragraph responses to these readings. The video and CD formats are maintained, while students continue to learn about French culture, civilization, and geography. Materials Needed: Folder, paper, pencil, and pen.

FRENCH III CREDITS: 1

713

**GRADES: 11-12** 

Pre-Requisite: French II with a C average in the second semester or recommendation from a French teacher

This course is designed for students who wish to explore and master the French language as a means of oral and written communication. Besides the work on language structure, reading, writing, and speaking in French are the main objectives of this program. Materials Needed: Folder, paper, pencil, and pen.

### AP FRENCH LANGUAGE

714

CREDITS: 1

**GRADES: 12** 

Pre-Requisite: French III with a C average in the second semester or recommendation from a French teacher

Advanced Placement French Language is for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students will demonstrate their level of French proficiency across three communicative modes: interpersonal, interpretive, and presentational. The course will include an intensive overall review of grammar, with a substantial increase in vocabulary as is related to the reading and conversation topics of the text. Students will be required to read Le Prince Price over the summer. French "humanities" will be studied - art, music, and literary greats, as well as current events and social issues. The course prepares students for the AP test in the spring where college credit may be earned. Materials Needed: Folder, paper, pencil, and pen.

GERMAN I CREDITS: 1 721

**GRADES: 9-12** 

Pre-Requisite: Recommended C average in English or a written recommendation from a teacher, parent, or counselor

This course is an introduction to the German language and culture. Students will acquire a basic vocabulary and understand basic sentence structure. There is a strong emphasis on speaking and conversing in German as well as reading basic stories and articles. Students will be able to produce entry-level written sentences and paragraphs. The culture and geography of Germany and other German-speaking countries will also be explored. Materials Needed: Spiral notebook.

## World Languages

## World Languages

GERMAN II 722

CREDITS: 1 GRADES: 10-12

Pre-Requisite: German I with a C average in the second semester or recommendation from a German teacher

This course will further increase student vocabulary and the understanding of German language structures. Students will speak, read, and write on a higher level by using more complex texts, conversations, and exploring a wider variety of topics. Original language material, including literature, art, and music will be used to expand the student's knowledge of the German culture. Materials Needed: Spiral notebook.

GERMAN III 723

CREDITS: 1 GRADES: 11-12

Pre-Requisite: German II with a C average in the second semester or recommendation from a German teacher

This course is designed for students who want to seriously work towards mastering the German language through conversations, readings, listening exercises, and written reports. A more advanced approach to language structure is taken. A deeper understanding of German culture and current events will be emphasized. Self-motivation and a good independent work ethic are expected. Materials Needed: Spiral notebook.

AP GERMAN LANGUAGE

724

CREDITS: 1

GRADES: 12

Pre-Requisite: German III with a C average in the second semester or recommendation from a German teacher

AP German Language is for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students will demonstrate their level of German proficiency across three communicative modes: interpersonal, interpretive, and presentational. The course will include an intensive overall review of grammar, with a substantial increase in vocabulary as is related to the reading and conversation topics of the text. German "humanities" will be studied as well as current events and social issues. The course prepares students for the AP test in the spring where college credit may be earned. Materials Needed: Spiral notebook and a small German dictionary.

SPANISH I 731 CREDITS: 1 GRADES: 9-12

Pre-Requisite: Recommended C average in English or a written recommendation from a teacher, parent, or guidance counselor

This course will introduce the student to the fundamentals of Spanish vocabulary and grammar. Students will develop all four essential skills of learning a World Language such as reading, writing, listening and speaking. Some cultural and geographical information will be covered as well. By the end of Spanish I, students will have the ability to use the present tense, communicate using basic vocabulary and greetings, and will have begun to use basic past tense. Materials Needed: Three-ring binder at least 1 inch or larger, loose leaf paper, and pencils/pen.

### SPANISH II CREDITS: 1

732

**GRADES: 10-12** 

Pre-Requisite: Spanish I with a C average in the second semester or recommendation from a Spanish teacher

This course will continue to build vocabulary and continue to develop grammar using the four essential skills of learning a World Language: reading, writing, listening, and speaking. Cultural and geographical knowledge will be expanded through various authentic and non-authentic materials. By the end of Spanish II, students will be able to use multiple tenses to speak, listen, read and write including the present, past, and subjunctive. Materials Needed: Three-ring binder at least 1inch or larger, loose leaf paper, pencils/pens, a Spanish/English dictionary.

SPANISH III CREDITS: 1

733

**GRADES: 11-12** 

Pre-Requisite: Spanish II with a C average in the second semester or recommendation from a Spanish teacher

This course will include a continuation of the study of vocabulary and grammar using all four essential skills of learning a World Language: reading, writing, listening and speaking. Conversation skills will be further developed through practical thematic units. Difficulty and relevance of vocabulary will also increase. By the end of Spanish III, students will be able to use multiple tenses to communicate including the present, past, subjunctive, future/conditional, and perfect tenses. Materials Needed: Three-ring binder at least 1 inch or larger, loose leaf paper, pencils/pens, and Spanish/English dictionary.

### AP SPANISH LANGUAGE

734

CREDITS: 1

**GRADES: 12** 

Pre-Requisite: Spanish III with a C average in the second semester or recommendation from a Spanish teacher

AP Spanish Language is for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students will demonstrate their level of Spanish proficiency across three communicative modes: interpersonal, interpretive, and presentational. The course will include an intensive overall review of grammar, with a substantial increase in vocabulary as is related to the reading and conversation topics of the text. Spanish "humanities" will be studied – art, music and literary greats, as well as current events and social issues. The course prepares students for the AP test in the spring where college credit may be earned. Materials Needed: Threering binder at least 1 inch or larger, loose leaf paper, pencils/pens, and a Spanish/English dictionary.

## World Languages

## iscrimination Polic

NOTICE TO ALL STUDENTS, STAFF MEMBERS, COUNSELORS, BUILDING ADMINISTRATORS:

In compliance with legislation, all students are to be counseled equally when describing the content of a course, program or field of academic study. All courses offered to the student population of Piqua High School are available to students without regard to gender, ethnic background, religion, or creed.

Specific statements relating to the following courses would emphasize that students of either gender, are encouraged to participate in the program.

- 1. Career Based Intervention
- 2. All Family & Consumer Sciences
- 3. All Industrial Technology Courses
- 4. All Music Courses
- 5. Tech Prep

### TO ALL STAFF AND STUDENTS OF THE PIQUA CITY SCHOOLS:

The following information is to be made available to all employees and students of the Piqua City Schools: *Pursuant to and in compliance with the following designated pieces of legislation:* 

HEW 441 (Title VI of the Civil Rights Act of 1964)

HEW 639 (Title IX of the Education Amendments of 1972)

HEW 641 (Section 504 of the Rehabilitation Act of 1973)

The Piqua Board of Education adopted the following policy:

The policies of the Piqua Board of Education in regard to educational programs an employment practices do not discriminate on the basis of sex, ethnic background, religion, age or creed, and such policies are within the established guidelines of all Federal acts, including Title IX of the Education Amendments of 1972

Notice is hereby given to all employees and students that grievance procedures are available to those individuals who feel their basic rights as described in the above-mentioned legislation have been abridged/denied. The specific procedures are available in the office of the principal, in each of the district's instructional buildings, or in the office of the Superintendent of the Piqua City Schools.

The district's contact person in matters related to the three above pieces of legislation would be:

Assistant Superintendent Piqua City Schools 719 East Ash Street Piqua, Ohio 45356 1-937-773-4321

Distributed and posted: April 1984

