# WORTHINGTON HIGH SCHOOL 2016-2017

## 9TH GRADE REGISTRATION GUIDE

**Mr. Josh Noble, Principal**
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# WORTHINGTON HIGH SCHOOL

# Student Registration Guide 2016-17

## Student Services Staff

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**Tony Hastings, Assistant Principal**
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## Registration

The registration process is one of the most significant tasks that allow a student and parents to a have a major impact on his/her future. Proper course selections can greatly enhance the likelihood of future opportunity and success. The registration process also creates a picture for the district as to staffing needs and the construction of the master schedule.

## The WHS Comprehensive Curriculum

ISD #518 believes in the importance of providing comprehensive and diverse educational opportunities to its clients. Worthington High School offers excellent variety in its course offerings and programs including several Advanced Placement, college prep ("honors"), vocational, technological, special education, and arts electives. Many of these courses are designed to meet the diverse needs of students across a broad range of abilities, interests and post-high school aspirations. If WHS does not formally offer a course within the high school facility, counselors will work with students to explore other options to meet unique needs. These include:

**Minnesota Post-Secondary Enrollment Option (PSEO)-**Eligible sophmores, juniors and seniors at Worthington High School may enroll at Minnesota post-secondary college on a full or part-time basis. Students may take classes for both secondary and post-secondary credit. Sophmore students may take only one Career and Technical Education Course. The purpose of the program is to promote rigorous educational pursuits and to provide a wider variety of options for students. Interested students should contact high school counselors for eligibility requirements. WHS works in partnership with Minnesota West to accommodate the students that qualify and desire participation in PSEO.

**Distance Learning / On-Line Learning-**Occasionally, a Worthington High School student has a desire to remain at WHS, but to explore an interest that is outside the curriculum base of ISD 518. Worthington school counselors will assist in attempting to locate outside resources that may allow a WHS schedule with a portion of the day in the Media Center connected to a web-based accredited on-line learning provider.

**ISD 518 VIBE K-12 Online Learning Academy-**VIBE provides educational opportunities for all students to gain the knowledge and skills necessary to be productive global citizens and successful lifelong learners, while the K-12 Online Learning Academy capitalizes on collaboration that leads to student success in school and the world.

## Daily Schedule

Worthington High School operates on a 4-period "block" schedule. Most of our classes are one-period in length (approximately 90 minutes). A few of our classes are half blocks or "skinnies" (approximately 42 minutes in length) to provide for some specific needs in certain course offerings.

## Credits and Course Length

Each full block class earns a half credit in a term (quarter). Traditional one credit, year-long courses, such as biology, algebra or US history, are two terms (semester) in length. In other words, due to the extended 90 minute class periods of the block schedule, a traditional yearlong class is completed in half of a school year. Students that earn credit in all their courses will earn 8 credits in a school year. Thirty total credits are required to graduate.

## Schedule Changes

Students should make their best effort to accurately choose their classes during the original registration process as if they may not be able to make any changes at a later date. Schedule changes may be possible only if the rationale fits the criteria listed below and the change is requested **prior to the third day of the quarter** (of the class in question). Approval of a class change may occur if there is **space available in the class being requested AND one of the following reasons exists:**

- A prerequisite course was not taken or wasn't passed
- The student is misplaced based on information that reveals a discrepancy between the course rigor and the student's ability
- The desired new course is a required class of the grade level of the student requesting the change
- Physical, mental health or other medical concern, verified by physician's note, support the change
- Post-Secondary Enrollment Options Program require the adjustment
- There is an error on the schedule
- A significant change has occurred with the student's future plan dictate course adjustments

**Students dropping courses after the first two days of a term will receive a grade of "F" if failing, or an N/C if passing in the course that is dropped (unless extenuating circumstances dictate otherwise as determined by the principal).**

## Terminology and Definitions

- **a & b, 1 & 2:** a and b represent the first and second quarters of a semester one credit class that are taken in sequence - i.e., Biology a & b, Geometry a & b; this differs from courses signified by 1 & 2 which designate courses that represent different levels of a course – i.e. Spanish 1, Spanish 2, etc.- however course one is a prerequisite for taking course number two, etc.

- **AP (advanced placement) course**: AP classes are rigorous college level courses. Students will earn college credit if they pass the AP exam that follows the course.

- **Block (period)**: A block is the equivalent of a period and lasts 90 minutes on a regular schedule. There are 4 blocks (periods) in a day.

- **Elective course**: A course students can choose to take to fulfill total credit graduation requirements.

- **Honors cours**e: A more rigorous version of the standard course with a quicker pace and greater demands, designed for academically talented and gifted students.

- **Prerequisite**: A course that students must pass before registering for a higher level course.

- **PSEO (Post Secondary Enrollment Option)** A Minnesota school choice opportunity that allows high school juniors or seniors to earn simultaneous credits in high school and a Minnesota college.

- **Required course**: A course that regular education students must pass in order to graduate from Worthington High School.

- **Semester**: A semester is 1/2 of the school year or two terms (approximately 18 weeks).

- **Skinny (half block)**: A skinny is a class that lasts for about half the length (42 minutes) of a normal block class (90 minutes). Skinny classes are spread over two terms to earn a ½ credit, and skinnies must pair with another skinny to fill a schedule.

- **Term (quarter)**: A term is 1/4th of the school year or a quarter. It is approximately 45 days or 9 weeks in length.

- **CIS College in School (Students will receive University of Minnesota Credit)** for a class taught at WHS by a WHS teacher.

- **Concurrent Enrollment** Courses taken at WHS and taught by a WHS teacher. Students earn high school credit and college credit with Minnesota West Community and Technical College.

# ACADEMICS
## WHS GRADUATION REQUIREMENTS 2017-2020

| | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| **Arts** (music, visual arts, media, theatre) | **1 credit** | **1 credit** | **1 credit** | **1 credit** |
| **English/ Communications** | **4 Credits**<br>.5 Fresh Composition<br>.5 Fresh Literature<br>.5 Soph Comp/ Lit<br>.5 Soph Communications<br>.5 American Authors a<br>.5 American Authors b<br>1 Elective | **4 Credits**<br>.5 Fresh Composition<br>.5 Fresh Literature<br>.5 Soph Comp/ Lit<br>.5 Soph Communications<br>.5 American Authors a or American Authors Hnrs. a<br>.5 American Authors b or American Authors Hnrs. b<br>1 Elective | **4 Credits**<br>.5 Fresh Composition<br>.5 Fresh Literature<br>.5 Soph Comp/ Lit<br>.5 Soph Communications<br>.5 American Authors a or American Authors Hnrs. a<br>.5 American Authors b or American Authors Hnrs. b<br>1 Elective | **4 Credits**<br>.5 Fresh Composition<br>.5 Fresh Literature<br>.5 Soph Comp/ Lit<br>.5 Soph Communications<br>.5 American Authors a or American Authors Hnrs. a<br>.5 American Authors b or American Authors Hnrs. b<br>1 Elective |
| **Mathematics** | **4 Credits**<br>Concepts of Algebra I, Concepts of Geometry, Concepts of Alg 2<br>**and Applied Math OR**<br>1 Algebra , 1 Geometry , 1 Algebra 2<br>**AND Applied Math or** APStatistics **OR** Algebra 3 | **4 Credits**<br>Concepts of Algebra I, Concepts of Geometry, Concepts of Alg 2<br>**and Applied Math OR**<br>1 Algebra , 1 Geometry , 1 Algebra 2<br>**AND Applied Math or** APStatistics **OR** Algebra 3 | **4 Credits**<br>Concepts of Algebra I, Concepts of Geometry, Concepts of Alg 2<br>**and Applied Math OR**<br>1 Algebra , 1 Geometry , 1 Algebra 2<br>**AND Applied Math or** APStatistics **OR** Algebra 3 | **4 Credits**<br>Concepts of Algebra Ic&d, Concepts of Geometry, Concepts of Alg 2<br>**and Applied Math OR**<br>1 Algebra , 1 Geometry , 1Algebra 2<br>**AND Applied Math or** APStatistics **OR** Algebra 3 |
| **Science** | **3 Credits**<br>1 Physical Science<br>1 Biology<br>1 Physics **OR** Chemistry | **3 Credits**<br>1 Physical Science<br>1 Biology<br>1 Physics **OR** Chemistry | **3 Credits**<br>1 Physical Science<br>1 Biology<br>1 Physics **OR** Chemistry | **3 Credits**<br>1 Physical Science<br>1 Biology<br>1 Physics **OR** Chemistry |
| **Social Studies** | **3.5 Credits**<br>1 U.S. History<br>.5 Geography<br>.5 World History Eastern<br>.5 World History Western<br>.5 Economics<br>.5 Am Government | **3.5 Credits**<br>1 U.S. History or AP US History<br>.5 Geography<br>.5 World History a<br>.5 World History b<br>.5 Economics<br>.5 Am Government | **3.5 Credits**<br>1 U.S. History **or** AP US History<br>.5 Geography<br>.5 World History a<br>.5 World History b<br>.5 Economics<br>.5 Am Government | **3.5 Credits**<br>1 U.S. History **or** AP US History<br>.5 Geography<br>.5 World History a<br>.5 World History b<br>.5 Economics<br>.5 Am Government |
| **Careers/Freshman Seminar** | **.5 Credit** | **.5 Credit** | **.5 Credit** | **.5 Credit** |
| **Intro to Computer Applications** | **.5 Credit** | **.5 Credit** | **.5 Credit** | **.5 Credit** |
| **Phy Ed** | **1 Credit**<br>.5 Intro to Phy Ed<br>.5 Phy Ed elective | **1 Credit**<br>.5 Intro to Phy Ed<br>.5 Phy Ed elective | **1 Credit**<br>.5 Intro to Phy Ed<br>.5 Phy Ed elective | **1 Credit**<br>.5 Intro to Phy Ed<br>.5 Phy Ed elective |
| **Fresh Seminar-Health** | **.5 Credit** | **.5 Credit** | **.5 Credit** | **.5 Credit** |
| **Health 10** | **.5 Credit** | **.5 Credit** | **.5 Credit** | **.5 Credit** |
| **Total Credits** | **18.5 Required Credits**<br>**11.5 Elective Credits**<br>**30 Credits for Graduation** | **18.5 Required Credits**<br>**11.5 Elective Credits**<br>**30 Credits for Graduation** | **18.5 Required Credits**<br>**11.5 Elective Credits**<br>**30 Credits for Graduation** | **18.5 Required Credits**<br>**11.5 Elective Credits**<br>**30 Credits for Graduation** |
| **State Tests** | MCA-II Math (11)<br>MCA-II Reading (10)<br>Grad. Writing (9) | MCA-II Math (11)<br>MCA-II Reading (10)<br>Grad. Writing (9) | MCA-II Math (11)<br>MCA-II Reading (10)<br>Grad. Writing (9) | MCA-II Math (11)<br>MCA-II Reading (10)<br>Grad. Writing (9) |

# ADDENDUM TO GRADUATION REQUIREMENTS 2017-2020

**ARTS**

**1 Credit**

To fulfill the 1 credit requirement in the Arts area, students may take a combination of the following classes:

- Any class from the Art Dept
- Floral Design
- AP Music Theory
- Class Guitar
- Concert Choir
- History of Rock
- Intro to Floriculture
- Landscape Design
- Media Arts
- Orchestra
- Theatre
- Trojan Choir
- Trojan Marching Band

**ENGLISH/ COMMUNICATIONS**

**1 Elective Credit**

The elective English credit may be fulfilled by taking any of the following classes in a combination that equals one credit:

- AP Literature
- Asian American Literature
- British Literature
- Creative Writing
- Debate or Adv Debate
- Dystopian Literature
- Film Studies
- Hispanic American Literature
- How to Make a Movie
- Humanities 1-Honors
- Modern Media
- Mythology 101
- Sports Literature
- Theatre

**PHYSICAL ED/ HEALTH**

**.5 Elective Credit**

The .5 elective Physical Education may be fulfilled by taking one of the following classes:

- Competitive Team Sports
- Healthy You 1
- Healthy You 2
- Healthy You 3
- Total Fitness 1
- Total Fitness 2
- Total Fitness 3
- You & the Outdoors

**SOCIAL STUDIES**

**.5 Economics Required Credit**

The .5 Economics required credit may be fulfilled by taking one of the following classes:

- Ag Economics
- Business Economics
- Economics

# AGRICULTURE

| CLASS | GRADE | CREDIT |
|---|---|---|
| Agri-Science 9 a & b | 9 | 2 terms, 1 cr. |
| Companion Animals | 9,10,11,12 | 1 term, .5 cr. |
| Intro to Floriculture | 9,10,11,12 | 1 term, .5 cr. |
| Metals, Manufacturing & Welding | 9,10,11,12 | 1 term, .5 cr. |
| Natural Resource Science | 9,10,11,12 | 1 term, .5 cr. |
| Woods, Water & Wildlife | 9,10,11,12 | 1 term, .5 cr. |

**^ = Prerequisite course needed**

**AGRI-SCIENCE 9 a & b**
**Two Terms Grade 9 Elective**
Build solid concepts in animal science, agronomy, floriculture, leadership development, and shop fundamentals. This class is the basic foundation that will be used to further knowledge of agricultural careers and develop rewarding experiences with the FFA.

**COMPANION ANIMALS**
**One Term Grades 9, 10, 11, 12 Elective**
This class will cover the different breeds of companion animals and fish. It will integrate the following concepts: pet selection, animal nutrition, body conformation, animal welfare/rights, training and management of home pets. Other topics will include nutrition, reproduction, and diseases. This course was designed for the person who thinks a “best friend” can be a pet.

**INTRODUCTION TO FLORICULTURE**
**One Term Grades 9,10,11,12 Elective / Art**
Challenge yourself with flowers. Explore and understand the dynamics of flower production, propagation and bonsai. Learn how to design and create floral displays showcased throughout the school, boutonnieres, corsages and cut flower arrangements. Students will have the opportunity to learn how to tie bows, choose flowers for arrangements, create a terrarium, design and plant an annual container garden and at the same time prepare for the real world of work.

**METALS, MANUFACTURING & WELDING**
**One Term Grades 9, 10, 11, 12 Elective**
In this class students will study the principles of metal and the processes used to fabricate them into consumer products and industrial uses. Students will learn about cost calculations used in manufacturing products. Participants will learn welding techniques used in manufacturing. This class will explore many hands on activities with some individual projects, exploring the welding techniques of aluminum, gas, wire feed, and stick arc welding. These activities will include the uses of electric welding devices and gases such as acetylene, argon, oxygen and carbon dioxide. Applications to current issues and careers will also be presented.

**NATURAL RESOURCE SCIENCE**
**One Term Grades 9, 10, 11, 12 Elective**
The purpose of this course is to provide students with an understanding of preservation and management. It will describe the characteristics and identify the features of large and small game mammals, waterfowl, game birds, fish, and local songbirds. Students will have an opportunity to complete a taxidermy project. We will also study the population trends, feeding habits, living habitat, laws and regulations relating to population management and trends for these species, and the environmental management qualities we can utilize to enhance their habitat. Forest Management will include the identification of common trees and forest plants. Students should take this course if they are interested in careers related to forestry, renewable resources, energy or the DNR.

**WOODS, WATER & WILDLIFE**
**One Term Grades 9,10,11,12 Elective**
This class is for students who are interested in wildlife and natural resources. In this class you will explore and learn about mammals, fish, birds and insects that are found in Minnesota. Activities will include identification, habitat, and conservation practices. The study of forestry along with national parks will be included.

## ART

| CLASS | GRADE | CREDIT |
|---|---|---|
| Intro to Art | 9,10,11,12 | 1 term, .5 cr. |

**^ = Prerequisite course needed**

**NOTE:** Students must have **completed Intro to Art** before taking any other Art courses, and cannot be taken simultaneously with another art class in any given term.

**INTRO TO ART**

**One Term Grades 9,10,11,12 Elective**

**Prerequisite for ALL other Art Courses**

This beginning art course places an emphasis on the elements of art and the principles of design using a variety of media and techniques. The students will learn how to create art, along with how to analyze, interpret, and discuss art. This course includes an introduction to the historical and social backgrounds of selected artworks. **This course is a prerequisite for all the other art classes except by special permission from the department chairperson.**

## BUSINESS

| CLASS | GRADE | CREDIT |
|---|---|---|
| Business Math | 9, 10 | 1 term, .5 cr. |
| Intro to Computer Applications* | 9, 10 | 1 term, .5 cr. |
| Kids, Cash and Credit | 9,10,11,12 | 1 term, .5 cr. |
| Keyboarding Basics | 9,10,11,12 | 1 term, .5 cr. |
| PC Maintenance 1^ | 9,10,11,12 | 1 term, .5 cr. |
| Sales & Marketing | 9,10,11,12 | 1 term, .5 cr. |

*** = Required Course**

**^ = Prerequisite course needed**

**# = Rotating Course only offered every other year**

**BUSINESS MATH**

**One Term Grades 9, 10 Elective**

This course covers fundamental mathematical operations and their application to everyday business problems. Units covered include checkbooks, payroll, budgeting, and borrowing, saving, investing, home expenses (electric, gas, water, phone, etc.), transportation, taxes, retail/wholesale pricing, and insurance. This course is an introduction to accounting.

**INTRODUCTION TO COMPUTER APPLICATIONS**

**One Term Grade 9 Required**

**Prerequisite: Previous Computer Experience w/20 WAM**

The student will learn/improve keyboarding skills, use the computer to prepare MLA Report Style, formal personal/business letters, and many other fun desktop publishing documents. In this course they will discover many features of Microsoft Office Suite. They will focus on Word, and begin the exploration of PowerPoint (presentations) and Excel (spreadsheets). Knowledge and use of Microsoft Office Suite is an expected skill in today's workplace. **College credit is available; see Mrs. Troe for explanation.**

**KIDS, CASH, AND CREDIT**

**One Term Grades 9, 10, 11, 12 Elective**

A class that teaches students to manage their personal finances related to current economic conditions. Concepts covered include but are not limited to credit cards, credit scores, credit reports, interest rates, housing rental and mortgage, health/auto/life insurance, financial institutions, the stock market and identity theft. This class will help prepare students financial decisions in college and beyond. This course will culminate with students participating in an online simulation involving real world financial decisions.

**KEYBOARDING BASICS**
**One Term Grades 9, 10, 11, 12 Elective**
This course is a prerequisite for Introduction to Computer Applications for students with limited or no previous computer experience. It will focus on the basics of operating a computer, learning the keyboard by touch, and introducing basic computer applications. **Recommended for students with less than 20 words a minute.**

**PC MAINTENANCE 1**
**One Term Grades 9, 10, 11, 12 Elective**
**Prerequisite: Intro to Computer Applications**
This course is designed for students that want to learn how to troubleshoot and repair a computer. Students will learn all the skills and concepts required for the CompTIA certification exams. Learning will take place through "hands on" activities.

**SALES & MARKETING**
**One Term Grades 9, 10, 11, 12 Elective**
Students will gain an understanding of finance, human resources, marketing, production, and social and environmental issues affecting entrepreneurs. In addition, students will be introduced to the process of writing a business plan (Entrepreneurship is a competition in Business Professionals of America and the business plan that the students write can be used in competition). Social and ethical responsibilities of entrepreneurs will also be explored. Students receive "hands on" experience of running a business by managing the high school concession stands; running the school store; and designing/manufacturing the current year's homecoming button.

## COMMUNICATION ARTS

| CLASS | GRADE | CREDIT |
|---|---|---|
| Debate | 9,10,11,12 | 1 term, .5 cr. |
| Freshman Comp Basics* | 9 | 1 term, .5 cr. |
| Freshman Comp* | 9 | 1 term, .5 cr. |
| Freshman Lit Basics* | 9 | 1 term, .5 cr. |
| Freshman Lit* | 9 | 1 term, .5 cr. |

*** = Required Course**
**^ = Prerequisite course needed**
**Students need to take required Communication Arts courses in the following order:**

**DEBATE**
**One Term Grades 9, 10, 11, 12 Elective**
Students will learn how to research topics, build arguments, analyze issues, and present their ideas in a convincing manner. Debate class is designed to teach through experience. Students will participate in a number of debates in class and will participate in a minimum of one debate tournament outside of class. This class is for students looking for college prep and a challenge in argumentation.

**FRESHMAN COMPOSITION BASICS**
**One Term Grade 9 Required**
**Prerequisite: Teacher recommendation only**
This course is designed to help students improve their writing skills with an emphasis on the Six-Plus-One Writing Traits. Freshman Composition Basics will focus on the basics of grammar, writing effective sentences, and well-developed paragraphs. Literature will be read and used as models for student writing. This class is preparation for the MN State Writing Test in 9th grade.

**FRESHMAN COMPOSITION**
**One Term Grade 9 Required**
Students will focus on improving their writing skills. Freshman Composition will focus on the Six-Plus-One Writing Traits, advanced grammar, crafted sentences, well-developed multi-paragraph compositions, and creative writing projects. Literature will be read and used as models for student writing. This class is preparation for the MN State Writing Test in 9th grade.

**FRESHMAN LITERATURE BASICS**
**One Term Grade 9 Required**
**Prerequisite: Teacher Recommendation**
This course includes the study of short stories, non-fiction, *Romeo and Juliet,* and *To Kill a Mockingbird,* with emphasis placed on understanding and appreciating the literature, literary terms, and vocabulary. Students will review good writing traits and write in response to the literature.

**FRESHMAN LITERATURE**
**One Term Grade 9 Required**
This course includes the study of short stories, non-fiction, *Romeo and Juliet,* and *To Kill a Mockingbird.* Literature will be read more independently, with emphasis on understanding, appreciating, and analyzing the literature. Students will review literary terms, vocabulary, and good writing traits. Students will respond to the literature with writing, research, and projects.

## FAMILY & CONSUMER SCIENCE

| CLASS | GRADE | CREDIT |
|---|---|---|
| Child's World | 9, 10 | 1 term, .5 cr. |
| Food Exploration | 9, 10 | 1 term, .5 cr. |

**^ = Prerequisite course needed**
***Up to three credits from selective colleges are available in the areas of Basic Cooking Principles, Family and Community Resources and Child Development when criteria is met. The combination of courses, independent work and a skills test will be completed to earn the certificate.***

**CHILD'S WORLD**
**One Term Grades 9, 10 Elective**
Explore the world through a child's eyes while learning to care for children of all ages. In this class, you will learn about parenting while working with a mechanical baby, how to care for children, set up a playschool and develop a new product to entice the interest of a young child.

**FOOD EXPLORATION**
**One Term Grades 9, 10 Elective**
Good nutrition and healthy choices can be fun. In this class, you will explore many foods and flavors along with preparation techniques. Explore the foods from around the United States, participate in sensory experiments, understand food label information, and research current related topics. Show your creativity in the kitchen, gain confidence in your food preparation skills, and make nutritious decisions.

# INDUSTRIAL TECHNOLOGY

| CLASS | GRADE | CREDIT |
|---|---|---|
| Computer Aided Design I (Creo) | 9,10,11,12 | 1 term, .5 cr. |
| Engineering | 9,10,11,12 | 1 term, .5 cr. |
| Intro to CAD (Creo) | 9,10,11,12 | 1 term, .5 cr. |
| Mechanical Drafting | 9,10,11,12 | 1 term, .5 cr. |
| Robotics | 9,10,11,12 | 1 term, .5 cr. |
| Woodcraft | 9,10 | 1 term, .5 cr. |

**^ = Prerequisite course required**

**COMPUTER AIDED DESIGN I (Creo)**
**One Term Grades 9, 10, 11, 12 Elective**
**Prerequisite: Introduction to CAD (Creo)**
**Next offered 2015-2016**
Students will learn CAD techniques and 3D CAD modeling through the use of Creo Parametric 2.0 design software. Units in this course cover 3D Solid Modeling, 3D Solid Sectioning, Multi-view Projection, and 3D Rendering. Students that successfully complete the Computer Aided Design course will be able to produce complex, accurate three-dimensional solid models that contain various rendered, geometric features while adhering to proper drafting standards and techniques.

**ENGINEERING**
**One Term Grades 9, 10, 11, 12 Elective**
Students will be introduced to the two disciplines in the engineering field through hands on experiences. Students will learn about the engineering design process and utilize the multiple steps to research, design, construct, test, and redesign an airplane and a balsa wood bridge. Students who complete the course will be able to apply the steps of the engineering design process to everyday problems and walk away with a better understanding of two disciplines within the engineering field.

**INTRODUCTION TO CAD (Creo)**
**One Term Grades 9, 10, 11, 12 Elective**
Students will learn the basics of CAD (Computer Aided Design) through the use of the Creo Parametric 2.0 design software. Units in this course cover Basic 2D CAD Drawing, CAD geometric construction, 3D Solid Modeling, Dimensioning, and Creating Working Drawings. Students that successfully complete the Introduction to CAD course will be able to produce complex, accurate computer aided designs that contain various geometric features while adhering to proper drafting standards and techniques.

**MECHANICAL DRAFTING**
**One Term Grades 9, 10, 11, 12 Elective**
**Offered every other year, next offered 2015-2016**
This course will familiarize students with basic drafting techniques. Students will learn the proper use of several different drafting tools, how to create orthographic and isometric drawings, and pattern layout. This course will be offered every other year, opposite of Architectural Drafting.

**ROBOTICS**
**One Term Grades 9, 10, 11, 12 Elective**
The objective of this course is to use a **hands-on** approach to introduce the basic concepts in robotics. Course information will be tied to lab experiments; students will work in teams to build and test increasingly more complex mini, mobile robots using the radio controlled VEX robotic system.

**WOODCRAFT**
**One Term Grades 9, 10 Elective**
Excellent introductory class for 9th and 10th grade students. A variety of crafts and techniques will be explored. Possible projects may include: birdhouses, mass production items, boxes, puzzles, etc. Varied applications finishes will also be introduced.

# MATHEMATICS

| CLASS | GRADE | CREDIT |
|---|---|---|
| Accelerated Geometry a & b^ | 9, 10, 11 | 2 terms, 1 cr. |
| Algebra 1 a & b | 9,10,11 | 2 terms, 1 cr. |
| Concepts of Algebra 1a & b | 9, 10, 11 | 2 terms, 1 cr. |
| Concepts of Algebra 1c & d^ | 9, 10, 11 | 2 terms, 1 cr. |
| Geometry a & b^ | 9,10,11,12 | 2 terms, 1 cr. |

**^ = Prerequisite course required**
**~ = Required for students not taking AP Statistics or Algebra 3**
**4 Math credits are required to graduate. All students must have STATISTICS instruction via Applied Math, Algebra 3, or AP Statistics course.**

**ACCELERATED GEOMETRY a & b**
**Two Terms Grade 9, 10, 11**
**Prerequisite: Algebra 1 or math dept recommendation**
This course will include all the topics in a regular geometry course but at a more rigorous level and pace. Students taking this course will be on sequence to continue college bound mathematics courses. The course includes material on coordinates, congruence and symmetry, measurements, area and volume. It integrates algebra with geometry and is rich in applications and problem solving. Formal and informal proofs and constructions are also covered.

**ALGEBRA 1 a & b**
**Two Terms Grades 9, 10**
**Prerequisite: Teacher recommendation from middle school or teacher recommendation at high school.**
Algebra is considered to be the language of mathematics. In this first year course of algebra, students will describe patterns of all kinds, work with formulas, discuss unknowns in problems and graph ideas. Topics covered include: addition, subtraction, multiplication, and division within equations; inequalities, writing and graphing slope, exponents, and polynomials. Compound inequalities, systems of equations and exponentials will also be introduced.

**CONCEPTS OF ALGEBRA 1a & b**
**Two Terms Grades 9, 10, 11**
***Required for incoming HS students not recommended for Algebra or Geometry**
This course is designed for students who need remediation in the fundamentals of math as they enter the high school. The course will have specific units involving measurement, fractions, numeric and variable expressions, equalities and inequalities, and applications of equations involving percent. **This course will receive HS elective credit but not HS math credit.**

**CONCEPTS OF ALGEBRA 1c & d**
**Two Terms Grades 9, 10, 11**
**Prerequisite: Passed Concepts of Algebra 1a & b**
This course is designed to further expose students in the area of algebra in a way that provides logical connections and practical application. This course is designed to build on the Concepts of Algebra 1a & b coursework and will really focus on developing and using algebraic understandings. There will be extensive work writing and evaluating algebraic expressions as well as writing and solving algebraic equations and inequalities. Writing and graphing linear equations, setting up and solving systems of equations and working with polynomials will also be a strong focus of the course.
**This course will receive HS math credit.**

**GEOMETRY a & b**
**Two Terms Grades 9, 10, 11, 12**
**Prerequisite: Algebra 1 or Concepts of Algebra 1**
Geometry is the first of a sequence of college bound mathematics courses. It includes material on coordinates, congruence and symmetry, measurements, area and volume. It integrates algebra with geometry and is rich in applications and problem solving. Formal and informal proofs and constructions are also covered.

## MUSIC

| CLASS | GRADE | CREDIT |
|---|---|---|
| Class Guitar | 9,10,11,12 | 1 term, .5 cr. |
| Concert Choir/Orch a&b | 9,10,11,12 | 2 terms, .5 cr. |
| Concert Choir/Orch c&d | 9,10,11,12 | 2 terms, .5 cr. |
| Orchestra a&b | 9,10,11,12 | 2 terms, .5 cr. |
| Orchestra c&d | 9,10,11,12 | 2 terms, .5 cr. |
| The History of Rock | 9,10,11,12 | 1 term, .5 cr. |
| Trojan Choir a&b | 9,10,11,12 | 2 terms, .5 cr. |
| Trojan Choir c&d | 9,10,11,12 | 2 terms, .5 cr. |
| Trojan Concert/March Band a&b | 9,10,11,12 | 2 terms, .5 cr. |
| Trojan Concert/March Band c&d | 9,10,11,12 | 2 terms, .5 cr. |

**CLASS GUITAR**
**One Term Grades 9, 10, 11, 12 Elective**
Class Guitar is an introductory, non-performance course designed to allow students to learn the basics of playing the acoustic guitar. Fundamentals of rhythm and melody, guitar techniques, chord / note reading and basic general music musicianship will be stressed. Tablature, transposition and finger-style playing will be explored. There is also a special individual research project attached to guitar class. The WHS Music Dept. furnishes all materials for this class including instruction books and acoustic guitars. Space is limited to 16 students per term.

**ORCHESTRA a, b, c, d**
**Four Terms Grades 9, 10, 11, 12 Elective**
**Prerequisite: Successful completion of the orchestra curriculum at the middle school level, or by audition, or by orchestra director's approval.**
ORCHESTRA is open to all students who can show proficiency as players of their chosen traditional stringed instrument (violin, viola, cello, and double bass). The orchestra rehearses daily with individual lessons and group sectionals offered as part of the course. Standard orchestral repertoire of intermediate to advanced difficulty from all musical periods will be studied. Performance of 2 and 3 octave major and minor scales, intonation, shifting, vibrato, bowing techniques, sight reading and refinement of ensemble playing will be part of the experience. Listening to our own performances and providing verbal and written critiques will be encouraged. Opportunities to hear live and recorded professional performances will be sought. The orchestra will participate in public performances scheduled at school and in the community. Opportunities to perform for contests, festivals and Minnesota All-State will be announced.

**THE HISTORY OF ROCK**
**One Term Grades 9,10,11,12 Elective**
Music often tells the story of a nation. The History of Rock studies popular musical styles from the early 1950's to present day. We will explore the impact Rock and Roll had on American and British culture, and we will study contemporary American History as it was told through the music of our youth.

**TROJAN CHOIR a, b, c, d**
**Four Terms Grades 9,10,11,12 Elective**
**Prerequisite: Students who have participated in a middle school choral program or have choir director's approval.**
Trojan Choir is open to all WHS students who enjoy singing. No audition is required. Trojan Choir is a singing group which provides young men and women with opportunities to develop technique, improve music reading, and perform a variety of choral literature. Performances include the Fall Concert, Festival of Christmas Music, Winter Concert, Section 2AA Large Group Contest, Section 2AA Solo & Ensemble Contest and the annual Pops Concert. Private voice lessons are also an integral part of this group experience. Opportunities for special ensembles like Bel Canto, VOX and Trojan Express are available.

**TROJAN CONCERT / MARCHING BAND a, b, c, d**
**Four Terms Grades 9, 10, 11, 12 Elective**
**Prerequisite: Successful completion of the instrumental band curriculum at the middle school level, or by audition, or by band director's approval.**
The WHS Trojan Band program provides students the opportunity to perform a wide variety of standard concert / marching band literature coupled with various instrumental musical styles. During this year long course, student musicians will rehearse various instrumental pieces covering major areas of music history and will augment their regular daily rehearsals with sectionals as assigned. Emphasis will be placed upon the continuation of fundamental and advanced musical skills, the understanding of performance-based music, and overall musicianship. Students receive a letter grade each marking period based upon points earned in evaluation, participation and performance. Membership is chaired through an audition / playing test process following the marching band season for concert band. The concert band participates in 3 concerts a year including the regional large group contest. Students are encouraged to participate in the regional solo/ ensemble contest and also audition for Minnesota All-State and other regional honor bands.
All high school band members march, in some capacity, with the 'Spirit of Worthington' Trojan Marching Band at the beginning of each school year. Besides instrumental, opportunities such as commanders, section leaders, drumline, color guard, frontline and honor guard positions are available. Term 1 is totally devoted to the marching band curriculum culminating in the annual indoor marching band concert during the school year. The award-winning WHS Marching Trojans travel and participate in field and parade competitions and homecoming. Please note that an early summer band camp is held prior to the start of each school year.
Pep Band is an extension of the Worthington instrumental band program and plays at most varsity home games. Participation points are earned towards a musical letter and 'Trojan Pride' is often found in this energetic group. Jazz Band is open to all band members, regardless of grade. This select auditioned group meets twice a week and competes annually in regional jazz festivals during terms 3 & 4.

## PHYSICAL EDUCATION

| CLASS | GRADE | CREDIT |
|---|---|---|
| Freshman Seminar-Health* | 9 | 1 term, .5 cr. |
| Intro to Physical Education * | 9,10,11,12 | 1 term, .5 cr. |

*** = Required Course**
**^ = Prerequisite course needed**

**FRESHMAN SEMINAR-HEALTH**
**One Term Grade 9 Required**
Being a teenager is both wonderful and challenging. The challenges teens face are tougher today than at any time in history: academic stress, parent communication, social media, dating drama, abuse, bullying, addictions, depression and peer pressure just to name a few. Students will also receive certified CPR and AED training. By learning these techniques students will be able to respond to emergency situations they may come upon in the future.

**INTRO TO PHYSICAL EDUCATION**
**One Term Grade 9, 10 Required**
Intro to Physical Education is a participation-based course for the student to enjoy physical activity and team competition. This course is based on learning the knowledge and skills needed to participate in a variety of sports and activities. Emphasis is focused on the development of motor skills, personal fitness, competition and sportsmanship. The purpose of this course is to provide each student with a strong foundation of activities and to establish good habits for lifetime practices.

## POST-SECONDARY PLANNING

| CLASS | GRADE | CREDIT |
|---|---|---|
| Freshman Seminar-Careers | 9, 10,11,12 | 1 term, .5 cr. |

**FRESHMAN SEMINAR-CAREERS**
**One Term Grades 9,10,11,12 Required**
This class is designed to introduce students to career and life planning concepts and how to apply these to their own lives. Individualized assessments of student's interests and skills will be conducted to determine strengths and interests. Research in various occupations will give students a better understanding of skills and education needed for their own planning. Students will also research the college application process, admission requirements, cost of post-secondary education and the importance of applying for scholarships. The job application process will be conducted as will the interview.

## SCIENCE

| CLASS | GRADE | CREDIT |
|---|---|---|
| Physical Science a & b* | 9, 10 | 2 terms, 1 cr. |
| Physical Science-Honors a & b* | 9, 10 | 2 terms, 1 cr. |

*** = Meets Required Course Physical Science**
**** = Meets Required Course Biology**
***** = Meets Required Course Physics or Chemistry**
**^ = Prerequisite course needed**

**PHYSICAL SCIENCE a & b**
**Two Terms Grade 9, 10 Required**
In physical science, students will explore the areas of physics and chemistry. Specifically, in Physical Science A, students will study the scientific method, measurement, energy, motion, sound, and electricity. In Physical Science B, students will study the classification of matter, states of matter, properties of atoms and the periodic table, chemical bonds, chemical reactions, and acids & bases.

**PHYSICAL SCIENCE - Honors a & b**
**Two Terms Grades 9, 10 Meets Requirement**
Physical science (honors) will cover all of the concepts in the regular class along with additional concepts in greater depth.

## SERVICE LEARNING

| CLASS | GRADE | CREDIT |
|---|---|---|
| Yearbook a&b | 9, 10, 11, 12 | 2 terms, .5 cr. |

**YEARBOOK a & b**
**Two Terms Grades 9, 10, 11, 12 Elective**
Students will plan, design, and ultimately create the Worthington High School yearbook publication as a historical document of WHS. Students are expected to produce a well-organized, professionally credited, multi-culturally unbiased publication. **Must enroll for 2 terms.**

## SOCIAL STUDIES

| CLASS | GRADE | CREDIT |
|---|---|---|
| AP Human Geography 9 a & b* | 9 | 2 terms, 1 cr. |
| Geography 9* | 9 | 1 term, .5 cr. |

*** = Required Course**
**^ = Prerequisite course needed**

**ADVANCED PLACEMENT HUMAN GEOGRAPHY a & b**
**Two Terms Grade 9 Required**
**(This course is for recommended students and will be taken instead of 9th grade Geography.)**
Advanced Placement (AP) Human Geography is an introduction to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. In this course students will focus on the distribution, processes, and effects of human populations on the planet. Units of study include population, migration, culture, language, religion, ethnicity, political geography, economic development, industry, agriculture, and urban geography. Emphasis is placed on geographic models and their applications. Case studies from around the globe are compared to the situation in both the United States and local areas.

**GEOGRAPHY 9**
**One Term Grade 9 Required**
Geography is the study of the earth's physical features and the living things, humans, animals, and plants that inhabit the planet. Geography looks at where all these elements are located and how they relate to one another. In this course students will gain an understanding of what geography is and why it is important to study it. In addition, selected geographic skills will be covered, including latitude and longitude determination, earth-sun relationships, climate, time, map projections and map scale.

# WORLD LANGUAGE

| CLASS | GRADE | CREDIT |
|---|---|---|
| German 1 a & b | 9,10,11,12 | 2 terms, 1 cr. |
| German 2 a & b^ | 9,10,11,12 | 2 terms, 1 cr. |
| Spanish 1 a & b | 9,10,11,12 | 2 terms, 1 cr. |
| Spanish 2 a & b^ | 9,10,11,12 | 2 terms, 1 cr. |

**^ = Prerequisite course needed**

**GERMAN 1 a & b**
**Two Terms Grades 9, 10, 11, 12 Elective**
German 1 is a course to develop a novice level of fluency in listening, speaking, reading, and writing and to develop an appreciation of the culture. The TPRS method of language instruction will be used. Multi-media units on German culture and excerpts from various works will also be used. The course is for beginning German students.

**GERMAN 2 a & b**
**Two Terms Grades 9, 10, 11, 12 Elective**
German 2 is a course structured to increase fluency in listening, speaking, reading, and writing skills, and to continue the appreciation of the German culture. The TPRS method of language instruction will be used. German literary works, multi-media cultural units, and materials related to the history of Germany will also be used. The course is for students who have completed German 1 and achieved a C or above.

**SPANISH 1 a & b**
**Two Terms Grades 9, 10, 11, 12 Elective**
Spanish 1 is a course to develop a novice level of fluency in listening, speaking, reading, and writing and to develop an appreciation of the culture. The TPRS method of language instruction will be used. Multi-media units on Hispanic culture and excerpts from various works will also be used. The course is for beginning Spanish students. If Spanish is the home language, a placement test is required PRIOR to registering for Spanish I.

**SPANISH 2 a & b**
**Two Terms Grades 9, 10, 11, 12 Elective**
Spanish 2 is a course structured to increase fluency in listening, speaking, reading, and writing skills, and to continue the appreciation of the Hispanic culture. The TPRS method of language instruction will be used. Hispanic literary works, multi-media cultural units, and material related to the history of Hispanics will also be used. The course is for students who have completed Spanish 1 and achieved a C or above. This course is not intended for native speakers.