

# Brookfield High School

Course catalogue 2012-2013



**Warriors—  
Determined, Loyal, Proud, and Strong**



***Once a Warrior, Always a Warrior***

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### Courses that incur fees for supplies and materials include:

- Art courses
- Music courses
- English courses
- Career Search I
- Manage Transitions
- Healthy Living
- Healthy and Safe Foods
- Child Development
- Chemistry
- Biology
- Human Physiology
- Physics

### Other fees include:

- Student parking (\$20.00)
- Transcripts after graduation (\$5.00)
- Art Club (\$10.00)

## Graduation Exercises

The Board of Education expects to have graduation exercises as per the following guidelines:

1. The senior high school commencement exercises are an integral part of the culminating activities surrounding successful completion of the kindergarten through grade 12 educational program.
2. In order to participate in graduation ceremonies, a student must meet all applicable state and local requirements and a student must have passed 22 total credits inclusive of all required subjects and all sections of the Ohio Graduation Test (OGT).
3. Students who have not met all necessary requirements will not be permitted to participate in graduation ceremonies. Options available to meet deficient graduation requirements are summer school, tutoring, and on-line courses. Upon fully meeting graduation requirements, students can choose to participate in the next graduation ceremony.
4. Credit earned is granted by meeting all course requirements in the classroom and all attendance requirements of the Brookfield Local School District.

## BROOKFIELD SCHOOLS MISSION STATEMENT

The mission of the Brookfield Local Schools, in partnership with its shareholders, the Community, is to provide a quality educational program in a safe environment that will enable students to reach their maximum intellectual, physical, and emotional growth.

The following will enable us to achieve our mission:

1. A dedicated and proficient staff shall ensure a solid base of knowledge for our students to build upon throughout their lives...
2. A curriculum shall be developed that will enable our students to function and excel in an ever-changing society...
3. Technology shall be utilized to assist the staff in developing the educational program and to enhance student achievement...
4. A safe and secure learning environment...

(Complete mission statement available in student handbook)

## Foreword

Specific questions relating to program options or course selections should be addressed to the guidance counselor. Decisions about course selections are important due to their long-range effects on educational and occupational opportunities. Decisions reached by you and your parents at the end of the course selection process will be considered as a firm commitment with the school.

Brookfield Local Schools has adopted the following policy to ensure students make thoughtful, responsible choices while allowing flexibility to accommodate changes in career goals.

- **ADDING A COURSE**

Students may add courses to their schedule providing the course being taught has seats available and prerequisites are met.

- **DROPPING A COURSE WITHOUT PENALTY**

Subjects may be dropped and others added to meet graduation requirements or the entrance requirements of a particular educational institution.

If the teacher and counselor determine that a subject is too difficult for the student, the teacher may recommend the course be dropped. The student must have made every attempt to do assigned work, homework, extra help, etc. This process must be completed by the end of the 5th week of the semester.

- **VOCATIONAL STUDENTS**

No student may return from TCTC except at the 2-week return date. After this time, the student must remain enrolled at TCTC for the remainder of the year.

## Ski Club

**grades 9-12**

Students may join Ski Club by paying fees determined by the costs from the ski area (Peek 'n Peak in Clymer, N.Y.) for services provided and bus transportation. The club takes six (6) trips in January and February to the ski resort on Thursdays departing at 2:15 and returning about 11:00. The purpose of the club is to provide a winter activity for students that will introduce a lifetime sport and allow social interaction among its members.

## Track and Field

**grades 9-12**

Track and field is a co-ed activity approved by the Ohio High School Athletic Association (OHSAA) that is offered during the spring of each year. The type of events involved are the shot put, discus, long jump and high jump as well as numerous running events. Due to the nature of the sport, any individual, no matter their size, can be successful in track and field.

## Future Teachers of America

**grades 11-12**

Future Teachers of America is an organization that is available for juniors and seniors with a 3.0 GPA or higher. Students who are interested in a career in education are encouraged to join FTA.

Members participate in visitations, volunteer for reading programs at the elementary level, and participate in other instructional assistance like tutoring programs.

## SADD

**grades 9-12**

SADD, Students Against Destructive Decisions, is a group dedicated to living a drug and alcohol-free lifestyle. SADD also promotes drug and alcohol awareness and healthy lifestyles communitywide.

## EXTRA-CURRICULAR ACTIVITIES

### **National Honor Society**                      **grades 11, 12**

National Honor Society is an organization that recognizes students for outstanding scholarship, character, leadership, and service. Students who have a cumulative GPA of 3.25 or higher, after their 5th and 7th semesters, are eligible to apply for induction into NHS. Students are selected by the high school faculty for membership in this organization.

### **Prep Bowl**                                      **grades 9-12**

Prep Bowl is a team of high school students who wish to participate in academic competition. The team usually takes part in two or three challenges throughout the year and practices one day a week after school.

### **Art Club**                                        **grades 9-12**

The Art Club provides artists with a place to expand their creative and academic abilities. Every year the prior art club members elect four officers (president, vice president, secretary, and treasurer). The officers organize club activities and rule on general club business. Members work on individual/group projects and attend field trips when possible. They are also involved with artistic community and school projects. There is a fee for art club.

### **Student Council**                              **grades 9-12**

Student Council is an elected group of students who help support the student body. They work to increase school spirit, support the community, and provide feedback to the administration when asked. They also participate in leadership activities.

## Introduction

This is your curriculum guide book. It is a guide to your future. Course selections you make now will impact your future decisions and goals. Serious consideration is necessary prior to finalizing your choices.

The guidance and faculty members at Brookfield High School have prepared this book. The intent is to offer students and parents of the district information regarding course offerings and graduation requirements. A brief description of each course is provided to assist students in making appropriate selections throughout their high school careers. We encourage parents and students to discuss curriculum options, in relation to career goals, and plan for the student's future in our evolving society.

If there are questions, please feel free to call the guidance counselor.

## General Information

GRADUATION REQUIREMENTS—Twenty-two (22) credits are required for graduation from Brookfield High School. Beginning with the class of 2014:

State and Local requirements mandate students complete the following courses in addition to meeting the total credits—

Four (4) units of English

Four (4) units of math, including Algebra II

Three (3) units of science including 1 lab-based science

Three (3) units of social studies

One (1) semester of financial management

One unit of fine arts, business/technology, or foreign language

Two (2) semesters of physical education

One (1) semester of health

One (1) semester of public speaking

For graduating class of 2013, the requirements are as follows—

Four (4) units of English

Three (3) units of math

Three (3) units of science

Three (3) units of social studies

One unit of fine arts, business/technology, or foreign language

Two (2) semesters of physical education

One (1) semester of health

One (1) semester of public speaking

All students must take five(5) or more credits each year. To earn the next grade classification, students must complete at least:

Five (5) credits to become a sophomore

Ten (10) credits to become a junior

Fifteen (15) credits to become a senior

**COLLEGE REQUIREMENTS**—The recommended core curriculum for college students is—

English (4) units

Academic math (3) units including Algebra I and II, and Geometry

Academic science (3) units including two lab courses

Social studies (3) units

Foreign language (3) units of one language or (2) units of two languages

Fine arts (1) unit

Financial management (.5) unit

## ATHLETICS

Brookfield High School offers a variety of athletic activities for both boys and girls.

Sports currently offered for male and female athletes are:

### Male

Football

Cross Country

Basketball

Track

Baseball

Golf

Bowling

Wrestling

### Female

Volleyball

Cross Country

Basketball

Track

Softball

Tennis

Bowling

Cheerleading

To be eligible for participation in interscholastic contests, a student shall be enrolled in a school by the 15th calendar day of the credit grading period (quarter, trimester, semester). Enrollment shall be continuous after a student has officially enrolled in a school until the student is officially withdrawn. During the preceding grading period, the student must have received passing grades in a minimum of five (5) one-credit courses or their equivalent, which count toward graduation and maintain a minimum 1.0 GPA. Fall sport eligibility is determined on the fourth nine-week grade period, not the final year grade and not summer grades.

The eligibility or ineligibility of a student continues until the start of the fifth (5th) school day of the next grading period, at which time the grades from the immediately preceding grading period become effective. Exception: eligibility or ineligibility for the first grading period starts with the start of the fall sports season.

## POST-SECONDARY OPTIONS PROGRAM

This program gives outstanding students an option to take college work for high school or college credit. Colleges determine the requirements that students must meet for enrollment and participation. Interested students should schedule to take the ACT or SAT early in the school year as that is one of the college enrollment requirements. **Parents of interested students should contact the school during the month of January for specific information.**

YSU post-secondary option requirements for juniors and seniors are: 3.3 GPA on a 4.0 scale and 23 ACT or 1070 SAT; for freshmen or sophomores—3.5 GPA on a 4.0 scale and 28 ACT or 1260 SAT. In addition, all respective students must earn placement into English 1550 based on the Composition and Reading Placement Test given by YSU and must have passed all parts of the Ohio Graduation Test (OGT). Students may also be required to take the Math Placement Test or the Foreign Language Placement Test if planning to enroll in those departments.

KSU—Trumbull requirements are: 3.0 GPA, and an ACT score of 21 or SAT scores of 1140.

**VOCATIONAL SCHOOL REQUIREMENTS**—Students at the end of their sophomore year may apply for admission to the Trumbull Career and Technical Center (TCTC). Twenty-six (26) vocational programs are available for students to consider.

Students must complete all freshman and sophomore requirements and have a total of ten (10) credits to be eligible to attend TCTC. The 10 credits must include:

English (2) units

Math (2) units

Science (2) units

Social Studies (2) units

Physical Education (2) semesters

Health (1) semester

Public speaking (1) semester

Six (6) or seven (7) credits can be earned each of the two years a student attends TCTC. Students will receive a certificate of completion from their program as well as a diploma from Brookfield High School at the end of their senior year.

## English Courses

### **English I**                      **Grade 9, 1 year**                      **1 credit**

Defining and improving communication skills is the focus of the English I classes. Students explore the three components of language study—grammar, composition, and literature. The keyword in this course is “variety.” Students are exposed to a variety of literary genres, including short story, drama, mythology, and poetry. They learn the terminology related to each and compare forms. They produce a variety of written genres including expository, descriptive, narrative and persuasive to fulfill state standards and prepare for the OGT.

Prerequisite: None

### **English II**                      **Grade 10, 1 year**                      **1 credit**

Students in English II read a variety of literary pieces—short stories, drama, poetry, and novels. Writing assignments are related to their reading. Students focus on improving their vocabulary, expand their writing skills, and review grammar and sentence structure. They prepare for the OGT held in March. The focus of the writing experience for the state test is the essay (narrative, expository, and persuasive) and the short answer/extended response.

Prerequisite: English I

### **General English III**   **Grade 11, 1 year**                      **1 credit**

American literature is the focus of General English III. This course uses an anthology, novels, plays, and YA literature to teach an appreciation of this country’s literary tradition. Writing assignments are tied to the reading. Informational text selections are also used from print and electronic sources.

Prerequisite: English II

- Information Technology
- Interactive Multimedia
- Interior Design
- Landscape and Design Technology
- Marketing Education
- Power Equipment Mechanics
- Public Safety
- Restaurant Services
- Visual Design and Imaging/Graphic Communications
- Welding

For specific program information, check the TCTC website at—  
[WWW.TCTCHOME.COM](http://WWW.TCTCHOME.COM)



**The following programs are available to students enrolled in the TCTC:**

- Air Force Junior ROTC
- Animal Management
- Architectural Drafting
- Auto Collision Technology
- Auto Services Technology
- Biotechnology
- Building Trades
- Business Office Systems
- Career Paths for the Teaching Profession
- Carpentry
- Community Co-Op (hospitality and tourism)
- Construction Technology
- Cosmetology
- Distribution and Warehousing
- Early Childhood Education
- Electrical Technology
- Engineering Technology (Project Lead the Way)
- Equine Management
- Health Science Academy
- Hospitality Services
- HR Fabric Services

**Academic English III      Grade 11, 1 year      1 credit**

Students in Academic English III read a broader selection of works and pursue a more advanced study of the American literary tradition. Readings in informational text address the academic need for diversity in a college-bound student's school experience. Writing assignments are drawn from the reading.

Prerequisite: B average or better in English II or recommendation of English II instructor.

**Advanced Placement English      11 /12, 1 year      1 credit**

Advanced placement English is a two-year course. Junior and Senior students are combined in one classroom. This course provides students with the chance to pursue college-level studies while still in high school. Students are provided experiences to prepare them to take the AP tests that may authorize college credit. Novel study is a primary focus of the course. Summer reading and preparation are required as are numerous writing activities. Course content includes American literature in one year and British and World literature in the other year. Class size is limited to eight (8) junior and eight (8) senior students.

Prerequisite: Teacher recommendation, parental permission, submission of writing samples.

**General English IV      Grade 12, 1 year      1 credit**

British literature is the traditional center of English IV study. Students begin with *Beowulf* and continue through Shakespearean drama. Informational text and high-interest selections round out the year along with selected plays.

Prerequisite: English III

**Academic English IV      Grade 12, 1 year      1 credit**

This course requires that students become familiar with college-level writing beginning with the analytical essay and moving to the Senior Career Research paper. Researching techniques, essay writing skills, and MLA citation are the focus of this course. The British tradition is the literary focus, and students complete analytical and/or inferential response assignments on a variety of works, from the classic to the modern.

Prerequisite: Academic English III

**Public Speaking      Grades 9-12, 1 semester      1/2 credit**

The public speaking course is a semester class designed to introduce students to the development of speeches and their performance. The students deal with the informative, persuasive, controversial, and impromptu speeches. The students learn the proper physical mechanics such as stance, gesture, and movement. Vocal skills including articulation, resonance, volume, inflection, rate of speed, and pitch are stressed. The proper development and organization of speech manuscripts and note cards is covered. This course is required for graduation.

Prerequisite: none

**Journalism      Grades 11 & 12, 1 year      1 credit**

Students in journalism are responsible for completing all facets of creating and selling the school yearbook. Students also write and edit three (3) editions of the school newspaper.

Prerequisite: teacher recommendation. Students may apply for a position in journalism during their sophomore year. Accepted students are 2-year members of the class as scheduling allows during their junior and senior years.

Programs including: Biotechnology, Career Paths for the Teaching Profession, Construction Technology, Engineering Technology, Health Science Academy, Information Technology, and Interactive Multi-media. Emphasis in these programs is on math, science, and technology which leads to post-secondary education opportunities. The TCTC's Tech Prep programs offer articulated credit at a wide variety of post-secondary institutions. Students eligible to take advantage of this opportunity save a great deal of time and money in college.

All Tech Prep programs are two (2) year programs that are taken during the junior and senior years. Upon successful completion of their program, students are awarded four (4) credits each year during their junior and senior years.

Students interested in enrolling in a Tech Prep program should have a 2.5 cumulative GPA, a "C" or better in Algebra I or its equivalent, a positive attendance record, and should have their credits in line for graduation.

See the next pages for specific courses offered at TCTC.

## TRUMBULL CAREER AND TECHNICAL CENTER

Brookfield is a member of the Trumbull County Career and Technical (TCTC) system. TCTC is centrally located between Warren and Champion next to the Kent-Trumbull Campus. Brookfield students are transported each day to TCTC by our bus.

Students register for the vocational school in February of their sophomore year. After selecting their course, they attend the TCTC for both their junior and senior years. While attending TCTC, students are still considered Brookfield students and may participate in all Brookfield High School extra-curricular activities. TCTC students graduate and get their diplomas from Brookfield High School.

To be eligible to attend TCTC, a student must have passed the following:

2 credits in English	1/2 credit in physical education
2 credits in math	1/2 credit in health
2 credits in science	1/2 credit in public speaking
2 credits in social studies	1/2 credit in financial management

To qualify at TCTC, a student must have a minimum of 10 credits on the high school transcript.

While attending TCTC, their attendance and discipline policies are the governing policies unless the student is participating in an extra-curricular at BHS when local rules may apply.

### Tech Prep

Tech Prep programs prepare students for high skill and high demand technical careers required in our increasingly competitive global market. The TCTC currently offers seven (7) Tech Prep

### Theatre Arts                      Grades 9-12, 1 year                      1 credit

Theatre arts is a course that examines the various aspects of theatre. The ancient theatrical beginnings associated with Greek and Roman theatre are discussed as well as the historical background of American theatre. Students learn about various technical aspects of producing a play as well as some basic acting techniques. Students participate in improvisational activities as well as acting scenes. The students read a variety of scripts and watch various theatrical productions. After completing the course, the student will have gained an appreciation for one of the most compelling art forms in our culture.

Prerequisite: none

### Theatre Arts II                      Grades 10-12, 1 year                      1 credit

This course is a continuation of the skills and concepts covered in Theatre Arts. More emphasis is given to acting and improvisational skills. The stage is used regularly. Further script study as well as more exposure to classic works is part of the curriculum.

Prerequisite: Theatre Arts (“C” or higher)

### Film Appreciation                      Grades 11/12, 1 year                      1/2 credit

Film appreciation is a semester class that explores the history of film both chronologically and by genre. Each week a different film is shown to illustrate a time period or to showcase a film category. Such films as Charlie Chaplin’s *Gold Rush* and Alfred Hitchcock’s *Rear Window* are two of the films that highlight an era or a film type. Assessment usually takes the form of written essay based on one film a week.

Fulfills 1/2 credit of the fine arts requirement.

Prerequisite: English II

**Film II**            **Grades 11/12, 1 semester**            **1/2 credit**

Film II builds on the knowledge gained in Film I by focusing on a specific genre in depth or on the works of one director. The semester may look at western, or film noir, for example. Film II also highlights the directing careers of some of Hollywood's finest such as John Huston, Alfred Hitchcock, Ron Howard, or Frank Capra.

Fulfills 1/2 credit of the fine arts requirement.

Prerequisite: Film I

**Music as Poetry**            **Grades 11-12, 1 semester**            **1/2 credit**

This course, designed for music lovers, is a chronological study of music, starting with the Blues and continuing to modern rock and roll. Students analyze song lyrics with the help of poetic terms and complete individual and group projects on artists of their choice.

Fulfills 1/2 credit of the fine arts requirement.

Prerequisite: English II

**Social Studies Courses**

**World Studies**            **Grade 9, 1 year**            **1 credit**

This is a survey of world history covering the age of enlightenment and continuing to modern times. The students take a tour through history studying man's progress through revolutions and past global wars. This period of human civilization emphasizes historical change and progress in the study of human history and culture.

Prerequisite: none

**MIDDLE SCHOOL MATHEMATICS CREDIT**

According to Senate Bill 55 passed by the State of Ohio, advanced work may be taken by middle school students.

The bill states that a high school may count such advanced work toward the graduation requirements if it was both: (A) taught by a person who possesses an Ohio educator's license or teaching certificate that is valid for teaching high school; and (B) designated by the district board of education as meeting the high school curriculum requirements.

- Any 8th grade student who passes Algebra I in the Brookfield School System will be given high school credit. This credit will count toward graduation, and the grade shall be calculated as part of his/her high school grade point average (GPA).
- Any 8th grade student from another school system or private school who has passed Algebra I, should be given high school credit. This credit counts toward graduation and the grade shall be calculated as part of his/her GPA. The teacher must have been certified in the teaching of secondary mathematics and proper Ohio certification must be presented to the Brookfield Local School System before credit is issued. It is the student's/parent's sole responsibility for obtaining proper documentation.

## **SPECIAL EDUCATION PROGRAMS**

This program is a specialized course of study, stressing the individual needs of students. It may involve any subject area of the high school and is based on the student's individual education plan (IEP).

Students who are having academic difficulty are sometimes referred for testing through a multi-factored evaluation (MFE). The MFE team determines if the student meets the criteria for this program. Once the student is officially placed in the program, the teacher must write an IEP that gives a specialized plan of instruction for that student.

### **Work Study**

A student is recommended for the Work Study program by the IEP team. Students may earn elective credits toward graduation through employment in the community. The program is monitored by the Work Study Coordinator. Students must continue to meet graduation requirements for Brookfield High School while participating in the work study program.

### **American History                      Grade 10, 1 year                      1 credit**

This is a survey course of American history from the second industrial revolution through the 21st century. This course is required for tenth grade students and is aligned with the state standards.

### **American Government                      Grade 12, 1 year                      1 credit**

Government is the study of the American way of life with emphasis on participatory citizenship. Problems of democracy are recognized and democratic solutions are sought. The course involves out of class work. Focus will be given to current world events and political, social, and economic history that has affected those situations. (senior requirement)

### **Sociology                      Grade 11/12, 1 semester                      1/2 credit**

This course studies human behaviors and interactions while focusing on current issues in society. The class uses a variety of materials to discuss social problems and potential solutions.

### **Intro. to Psychology                      Grade 11/12, 1 semester                      1/2 credit**

Introduction to psychology includes the study of thought processes and human behavior to include interactions within the environment, relationships, emotion and motivation. Special attention is given to the work of Freud and others in the field.

## MATHEMATICS COURSES

### **Math I**      **Grades 9/10, 1 year**      **1 credit**

Topics covered include simplifying and evaluating variable expressions, graphing linear equations, solving equations, using ratios and proportions, analyzing graphs and data, investigating functions and working with basic geometry including lines and angles. Emphasis is to prepare the student for Algebra I.

Prerequisite: none

### **Math II**      **Grades 10/11, 1 year**      **1 credit**

Math II is an extension of Math I. Topics covered include solving multi-step equations, graphing equations, using formulas, applying right triangle relationships, and working with two- and three-dimensional shapes. Emphasis is given to basic geometry theorems and postulates.

Prerequisite: Math I

### **Algebra I**      **Grades 8-11, 1 year**      **1 credit**

Covers a background of symbols used in converting arithmetic statements to general algebraic ideas. Students learn to develop a real number system. Operations with signed numbers and polynomials are covered as well. Linear equations in two variables are solved graphically and algebraically. Basic concepts of exponents are studied. Elementary concepts of coordinate geometry are introduced. Quadratic equations are developed from statements and solved.

Prerequisite: teacher recommendation and above-average math grades.

### **Music Appreciation**    **grades 9-12, 1 semester**      **1/2 credit**

This course allows students to explore and experience the basic elements of music and musical form beyond a general music class. The class increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Students experience music from various time periods and cultures, emphasizing the relationship music has, as an art form, on man and society. This includes the study of composers and performers from different musical time periods. World music is also introduced and explored. Students are required to attend assigned public performances and are expected to write critiques of each performance as assigned by the teacher.

Prerequisite: none

## **SUCCESS WORK EXPERIENCE (O.W.E.)**

The success work program is designed to serve junior and senior students who are academically disadvantaged due to lack of interest, reading ability, or other factors and have not yet found an interest in school work. The program offers students a chance to develop abilities, interests, and self-confidence through related classroom instruction and work experience. The class also attempts to provide a learning environment where both groups and individuals meet their needs and interests.

Students enrolled in this program also take English, math, history, and science for additional credits.

Prerequisites: selection determined by administration

Requirements: **STUDENTS MUST BE EMPLOYED**

**Symphonic Band**      **grades 9-12, 1 semester**      **1/2 credit**

The symphonic band is the large concert ensemble at Brookfield High School. Performances for this group include scheduled concerts, OMEA sanctioned band contests, festivals, and other promotional events. The educational emphasis for this group is achieving an advanced level of musicianship as well as learning about various musical styles and their proper interpretation and performance practice. Students in this ensemble are expected to uphold the highest level of rehearsal and concert etiquette. Grades for this group are determined by practice and preparation of assigned music, attendance at rehearsals and performances, rehearsal attitude, concert etiquette, and continued development as a contributing member of the band. Students must participate in all public performances unless excused by the head band director.

Prerequisite: marching band and teacher recommendation

**Jazz Band**      **grades 9-12, 1 year**      **1 credit**

Jazz band involves the study of a contemporary style of music that is important for today's music students. Other areas of study are basic rhythmic ideas, principles of instrumentation, and style. Blues, rock, and jazz are broadened with students' learning and expanding on ad-lib approaches to performance. Improvisation in any style is the basic goal for each student.

Prerequisite: teacher recommendation

**Algebra II**      **Grades 9-12, 1 year**      **1 credit**

Algebra II, a high-quality math course, is designed to prepare students for college or a career. Topics are taught in depth and include skills, reasoning, and problem solving. The study of functions (linear, quadratic, exponential, piecewise, radical, and rational) are explored. Geometry is used to support algebraic topics. Patterns, sequences, and functions are also studied.

Prerequisite: Algebra I

**Advanced Algebra II**      **Grade 9, 1 year**      **1 credit**

Advanced Algebra II offers continued work in factoring special products and solutions of fractional equations and systems of linear equations. The study of graphs, quadratic functions, irrational numbers, imaginary numbers, exponential expressions, ratios, proportion, sequences and probability are also given consideration. A Texas Instrument graphing calculator is required for this course (TI-83 or TI-84 preferred).

Prerequisite: Algebra I and teacher recommendation

**Geometry**      **Grades 10-12, 1 year**      **1 credit**

The subject allows students to improve logical thinking skills through an understanding of relationships between points, lines, plane figures and space figures. The subject requires the student to prove geometric relations both inductively (visually) and deductively (use of properties). The student will explore relationships involving distance, area, and volume using polygons, circles, and solid figures.

Prerequisite: Algebra II

**Pre-Calculus**                      **Grades 11-12, 1 year**                      **1 credit**

This course is an advanced study of math with respect to relations and functions. Students explore the trigonometric functions through evaluations, graphing, proof, and application. The course also develops topics including conic sections, parametric equations, polar equations, logarithmic, and exponential relations.

Prerequisites: Algebra II, geometry (C average/better)

**Calculus**                              **Grades 11-12, 1 year**                              **1 credit**

A course for college-bound students that includes advanced topics in mathematics. Students study the trigonometric relationships of triangle sides and angles using algebraic methods built on established theory. Trigonometric relations are analyzed with graphs and deductive proofs. The course also includes a number of topics defined by linear, power, exponential, and logarithmic relations and functions. The course concludes with a study of analytic geometry. A graphing calculator (TI-83 plus) is required for the implementation of technology-based problems throughout the course.

Prerequisites: Pre-calculus

**Senior Mathematics**                      **Grade 12, 1 year**                      **1 credit**

The course is designed to discuss problems relating algebraic and geometric concepts and their applications. Data analysis with statistical inferences for problems along with other practical applications is included throughout the course. The use of technology involving graphing calculators or computer application programs allows students to analyze concepts. Other mathematical topics are selected by the instructor to enhance learning outcomes for students. ACT/SAT preparation is considered in choosing topics of study.

Requirement: senior status

**Strength/Conditioning**                      **grades 11-12, 1 semester**                      **1/2 credit**

This course is a comprehensive program that involves daily stretching, weight training, and aerobic activities. The class emphasizes active participation, a written daily log of workouts, and lectures over selected fitness topics.

Prerequisite: teacher recommendation, junior or senior status

**MUSIC COURSES**

**Marching Band**                      **grades 9-12, 1 semester**                      **1/2 credit**

The marching band is the largest of the performing ensembles at Brookfield High School. The group performs in a variety of settings including football games, band nights, parades, and pep rallies. The educational emphasis for this group is quality of musical performance as well as precision marching. Grades for this group are determined by memorization of assigned music, attendance at rehearsals and performances, and development as a contributing member of the band. Students must participate in all public performances unless excused by the head band director. Students attend band camp in the summer and practice prior to school beginning.

Prerequisite: teacher recommendation and enrollment in symphonic band at the end of marching season.



## PHYSICAL EDUCATION AND HEALTH COURSES

### **Physical Education**      **grade 9, 1 semester**    **1/4 credit**

The goal of physical education is the well-rounded development of students as responsible adults in the following areas:

1. Development of physical fitness
2. Development of useful physical skills
3. Acquisition of socially desirable traits
4. Acquisition of safety skills and habits
5. Enjoyment of wholesome recreation

Required equipment: lock, gym clothes, gym shoes

### **Physical Education**      **grades 10-12, 1 semester**    **1/4 credit**

The PE program consists of varied activities involving physical fitness exercises to condition students. Skills are developed using team sports, working with basic skills, team play, and sportsmanship. Individual sports, apparatus, and gymnastic activities are also used.

Through a varied program of marching drills, calisthenics, rhythm, dance, games, talks on health and sportsmanship, posture, and stressing the values of intramural participation, the department works to develop a strong, well-coordinated body, to increase a student's performance skills, and improve mental traits. One important objective is to help all students in leadership and fellowship so the carryover values may help to improve their social efficiency at all times.

Equipment required: lock, gym clothes, gym shoes

Prerequisite: sophomore status

## Project Lead the Way Courses for Satellite Program

### **Intro to Engineering Design**      **Grades 9-12**    **1 credit**

Designed for 9th and 10th grade students, the major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peers and members of the professional community.

### **Principles of Engineering**      **Grades 10-12**    **1 credit**

This survey course of engineering exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, documenting their work and communicating solutions to peers and members of the professional community.

Upon successful completion, students are eligible to earn college credit, which will save both time and money if they choose to pursue postsecondary education after high school.

Prerequisite: Intro to Engineering Design

Requirements: 90% or better attendance, 2.5 GPA, strong math and science background (minimum C average in both)

## SCIENCE COURSES

### **Integrated Science I**      **Grade 9, 1 year**      **1 credit**

Integrated Science I is designed to cover all three strands of science—physical, life, and earth/space. In physical science, the study of energy and its forms is the focus. The life science strand concentrates on the investigation of life and the study of cells and the processes within them. The earth science portion deals with the earth's composition as well as earth processes.

Prerequisite: none

### **Integrated Science II**      **Grades 10-12, 1 year**      **1 credit**

Integrated Science II is designed for the general curriculum student wishing to fulfill a science course other than those offered in the college prep curriculum. This class does not qualify as a lab science. Students in this course will study all three strands of science—physical, life, and earth/space. The physical science portion focuses on the study of matter and its forms and behaviors. Life science emphasizes cell reproduction, heredity, and evolution. The earth science strand studies plate tectonics as well as the geologic time scale.

Prerequisite: Integrated Science I

### **Biology**      **Grades 10-12, 1 year**      **1 credit**

Biology is the study of life. Cell biology, genetics, evolution, and ecology are the core topics of the course with an overview of botany and zoology. In this course the study approach involves lab work, problem solving, and inquiry-based learning. Regular study methods are also used.

Prerequisite: Integrated Science I (80%), teacher recommendation

### **Child Development**    **grades 9-12, 1 semester**      **1/2 credit**

This course provides students with knowledge of how parents and child care providers meet the needs of infants and young children to provide for healthy growth and development. Prominent theories of child psychology are studied.

Prerequisite: none

### **Healthy/Safe Foods**    **grades 9-12, 1 semester**      **1/2 credit**

Students develop practical problem solving skills that influence cultural and social factors affecting body weight and healthy lifestyles. In addition, the students learn to demonstrate safe food handling practices related to food-borne pathogens in kitchens.

Prerequisite: none

### **Healthy Living**      **grades 9-12, 1 semester**      **1/2 credit**

The students develop practical problem solving skills that influence cultural and social factors affecting body weight and healthy lifestyles. The students use time management strategies and decision making skills to accomplish class goals. Classes learn about peer pressure, cultural awareness and other factors relating to educational, work, and family goals to sustain productive and meaningful lives.

Prerequisite: none

## WORK AND FAMILY COURSES

### **Financial Management I** grades 9-12, 1 semester 1/2 credit

This course provides students with an understanding of the concepts and principles involved in managing one's own personal finances. Topics may include savings and investing, credit, insurance, taxes and social security, spending patterns and budget planning (food, clothing, shelter, etc.), contracts, and consumer protection.

Prerequisite: none

### **Career Search** grades 9-12, 1 semester 1/2 credit

Students integrate management principles that lead to more productive and meaningful lives. They demonstrate how academic achievement influences personal and career growth, learn conflict resolution techniques and apply social skills that lead to healthy, caring and responsible citizenship as well as effective school, career and family relationships. Students also demonstrate time management skills.

Prerequisite: none

### **Manage Transitions** grades 9-12, 1 semester 1/2 credit

This course is designed to help the student with his/her own growth and development. The student experiences hands-on activities in the areas of values and goals, time management, and stress management. Students develop strategies for lifelong learning.

Prerequisite: none

### **Chemistry** Grades 11/12, 1 year 1 credit

Chemistry is the study of the composition and properties of matter and the reactions between matter. Chemical bonding, chemical formulas and equations, mole concept, gas laws, and mathematical relationships through equations are some of the major topics. Brief introductions to nuclear and organic chemistry are also covered. The study approach includes lab activities, library research, and problem solving as well as regular study methods.

Prerequisites: Algebra I, biology

### **Human Physiology** Grade 12, 1 year 1 credit

Topic areas of study in the course are primarily the same as in general biology with an emphasis on human physiology. However, the subject matter is pursued in much greater depth and with more required individual student effort. Extensive lab work is common.

Prerequisite: biology and chemistry

### **Physics** Grade 12, 1 year 1 credit

Physics is the study of the scientific laws and principles that govern the behavior of matter. It deals with the fields of mechanics, heat, light, sound, electricity, and electronics. Major emphasis is through laboratory investigations and mathematical relationships.

Prerequisites: Algebra II, pre-calculus

## TECHNOLOGY

### **Computer Applications I**    **grades 9-12, 1 semester**    **1/2 credit**

This course is designed for students at all computer literacy levels and provides instruction for computer use in common software programs. Word processing, database management, spreadsheets and presentation software are used as well as Internet applications. Students also combine text and graphics in a variety of formats to create publications such as newsletters, brochures, flyers, and special forms.

### **Computer Applications II**    **grades 10-12, 1 semester**    **1/2 credit**

This course is a continuation of Computer Applications I. By building on the skills learned in Word, Excel, Access, PowerPoint and Publisher, the student will leave the course with marketable skills. Upon completion of this course, students will be given the chance to take the Microsoft Office Specialist (MOS) tests at the Proficient Level. Upon successful completion of each of the tests, students will receive a certificate from the Microsoft Corporation.

Prerequisites: Computer Applications I (B or better)

### **Web Design I**            **grades 9-12, 1 semester**        **1/2 credit**

Students explore the Internet and World Wide Web concepts as they relate to web design. HTML tags will be written to format titles, headings, bullets, hyperlinks, paragraphs, backgrounds, images, colors, fonts, tables, image maps, frames, and forms. Content development and layout formation become increasingly important during the semester-long course.

Prerequisites: Computer Applications I (80%)

### **Paint I**                            **grades 9-12, 1 semester**        **1/2 credit**

Paint I introduces the student to the skills and techniques of paint. Various projects and materials are used as students learn to create pieces and build their painting skills and brush techniques. Materials required.

Prerequisite: none

### **Paint II**                            **grades 9-12, 1 semester**        **1/2 credit**

Students have the opportunity to study advanced principles of paint. These principles are applied as an in-depth approach using a wide variety of materials. Students are able to add to their skills in more advanced work. Weekly entries completed outside class required and include both visual and written responses to themes. Materials are required.

Prerequisite: Paint I

### **3-D Art I**                            **grades 9-12, 1 semester**        **1/2 credit**

Students are introduced to the skills and techniques of 3-dimensional art. Various projects are created as students learn how to work with textiles, clay, and other materials.

Prerequisite: none

### **3-D Art II**                            **grades 9-12, 1 semester**        **1/2 credit**

Students study advanced principles of 3-dimensional art. These principles are applied as an in-depth approach using a wide variety of materials. Students add to their skills with more advanced work. Weekly entries outside the classroom are required.

Prerequisite: 3-D Art I

**French IV**                      **grade 12, 1 year**                      **1 credit**

French IV is designed as an in-depth study and review of the French language and culture. Students review grammar and literature as well as study modern-day French history from 1821 to the present.

Prerequisite: French III (80%)

**FINE ARTS COURSES**

**Drawing I**                      **grades 9-12, 1 semester**                      **1/2 credit**

Students are introduced to the skills and techniques of drawing. Various projects and materials are used as students learn to create pieces and build their drawing skills. Drawing materials required.

Prerequisite: none

**Drawing II**                      **grades 9-12, 1 semester**                      **1/2 credit**

Students have an opportunity to study advanced principles of drawing. These principles are applied as an in-depth approach using a wide variety of rendering materials. Students are able to add to their skills in more advanced work. Weekly sketchbook entries completed outside class are required and include both visual and written responses to themes. Drawing materials are required.

Prerequisite: Drawing I

**Senior Portfolio**                      **grade 12, 1 semester**                      **1/2 credit**

Seniors work to create a comprehensive art portfolio suitable for college applications and scholarship interviews. Work is independent and student-driven with the instructor as advisor.

Prerequisites: senior status, minimum second semester of drawing, paint or 3-D art, teacher recommendation

**Web Design II**                      **grades 10-12, 1 semester**                      **1/2 credit**

Advanced web design tools including Cascading Style Sheets, JavaScript, Pop-up Windows, Scrolling Messages, Form Validation, DHTML, and SML are introduced. Students should be capable of working independently, seeking information through personal research and investigation, and tracking their own progress.

Prerequisites: Web Design I (80%)

**Desktop Publishing** **grades 9-12, 1 semester**                      **1/2 credit**

Students learn the basics of graphic design, text design, and electronic publishing. Students will use MS Works and Publisher, and Adobe Photoshop elements to create professional-looking documents.

Prerequisites: none

## FOREIGN LANGUAGE COURSES

### **Spanish I**                      **grades 9-12, 1 year**                      **1 credit**

The aim of first year Spanish is to present the simple principles of the language through a limited amount of grammar and vocabulary; to develop the ability to read prose of moderate difficulty and enjoyment; and to introduce material that will help cultivate a more sympathetic understanding and appreciation of Spanish-speaking people.

Prerequisite: recommendation by teacher, above-average grades in language arts

### **Spanish II**                      **grades 10-12, 1 year**                      **1 credit**

A review of the principles of the language presented the first year, with the introduction of additional grammar, composition, conversation, and the reading of Spanish stories; a study of the culture, language, and customs of our Spanish-speaking neighbors.

Prerequisite: Spanish I (80%)

### **Spanish III**                      **grades 11-12, 1 year**                      **1 credit**

This course provides a review of grammar, a facility in linguistic participation, and an introduction to Spanish literature, history, and the civilizations of the world influenced by Spain. Emphasis is on expanding use and familiarity through speaking and reading more accurately and rapidly.

Prerequisite: Spanish II (80%)

### **Spanish IV**                      **grade 12, 1 year**                      **1 credit**

This course strives for more linguistic proficiency and advanced knowledge of the problems of the Spanish-speaking world, plus deeper research into their customs, mores, clothing, etc. Students learn to develop poise and self-assurance while giving synopses, skits, etc., in Spanish.

Prerequisite: Spanish III (80%)

### **French I**                      **grades 9-12, 1 year**                      **1 credit**

French I is an introductory course in the French language and culture. Methods of instruction emphasize oral conversation, grammar, and a basic cultural background.

Prerequisite: teacher recommendation, above average grades in language arts

### **French II**                      **grades 10-12, 1 year**                      **1 credit**

French II emphasizes the continuation of the study of grammar and conversation. Further emphasis is given to the study of life in France.

Prerequisite: French I (80%)

### **French III**                      **grades 11-12, 1 year**                      **1 credit**

French III gives the student a background in the language, culture, and history of France. Emphasis is placed on speaking more fluently, writing in a grammatically correct style, reading more rapidly, and striving for ease in pronunciation and comprehension.

Prerequisite: French II (80%)