## Course Selection Worksheet

| English II |  |
| :---: | :---: |
| $\square$ College Prep | $\square$ Honors |
| Math |  |
| $\square$ Geometry College Prep | $\square$ Algebra II College Prep |
| $\square$ Geometry Honors | $\square$ Algebra II Honors |
| Science |  |
| $\square$ Anatomy and Physiology | $\square$ Chemistry College Prep* |
|  | $\square$ Chemistry Honors* <br> *Must be concurrently enrolled in Algebra II |
| Social Studies |  |
| $\square$ World History College Prep | $\square$ World History AP |
| Theology II |  |
| World Language |  |
| $\square$ Russian I $\square$ Spanish I | $\square$ Spanish III |
| $\square$ Russian II $\square$ Spanish I Honors | $\square$ Spanish III Honors |
| $\square$ Russian III $\square$ Spanish II | $\square$ AP Spanish Language |
| $\square$ Adv Russian $\quad \square$ Spanish II Honors |  |
| Health This is a 1 semester course ( 0.5 credits) |  |


| Electives* |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ GeoTech | $\square$ | Band Fund.** | $\square$ | Marching Band | $\square$ | Athletic Development |
| $\square \quad$ Adv Tech (GIS) | $\square$ | Adv Band** | $\square$ | Jazz Band | $\square$ | Dance |
| $\square$ Gaming | $\square$ | Adv Honors Band** | $\square$ | Intro Art | $\square$ | Strength |
| $\square \quad$ Adv Gaming VR | $\square$ | Strings** | $\square$ | Draw/Paint | $\square$ | Yoga |
| $\square$ Robotics | $\square$ | Adv Strings** | $\square$ | Adv Paint | $\square$ | Sports Medicine** |
| $\square \quad$ Adv Robotics | $\square$ | Adv Honors Strings** | $\square$ | Photol | $\square$ | 1960s ${ }^{\text {c }}$ |
| $\square$ Web Design | $\square$ | Choir | $\square$ | Photo II | $\square$ | Animals \& Humans |
| $\square \quad$ Engineering I | $\square$ | Adv Choir** | $\square$ | Art Appreciation DC | $\square$ | Psychology CP |
| $\square \quad$ Engineering II | $\square$ | Music Theory AP** | $\square$ | Ceramics I | $\square$ | Psychology DC |
| $\square \quad$ BCIS DC | $\square$ | Theatre I | $\square$ | Ceramics II |  |  |
| $\square \quad$ Graphic Design I | $\square$ | Theatre II | $\square$ | Yearbook** |  |  |
| $\square$ Graphic Design II | $\square$ | Technical Theatre |  |  |  |  |
| $\square \quad$Computer Science <br> Principals AP ** |  | Musical Theatre Appreciation |  |  |  |  |

*Many electives are 1 semester ( 0.5 credits) unless otherwise indicated.
**Year-long elective (1.0 credits)
New or updated course.
Students should select enough classes to complete 8 credits in $\mathbf{1 0}^{\text {th }}$ grade.

## ENGLISH

## English II College Prep

The focus of English II is centered on important literary works, both ancient and modern, from various cultures and locations around the world. The diverse selections from a variety of genres are studied in their historical and geographic contexts. In addition to focusing on reading comprehension, students will continue to develop their writing skills through analytical writing activities and a research project. Ongoing development of grammar and vocabulary skills is also emphasized.

## English II Honors

Prerequisite: English I or English I Honors and departmental approval
English II Honors is designed to aid the serious English student in the development of the analytical and writing skills necessary for further English AP coursework. The content of this class is the same as the English II; however, more extensive reading selections will be required. Grammar skills are assumed and the development of vocabulary skills is ongoing.

## MATH

## Geometry College Prep

## Prerequisite: Algebra I

Geometry is designed to provide each student with knowledge of the basic principles, postulates, and theorems of Euclidean Geometry. Each student will learn to write a proof, read figures, draw three-dimensional shapes and apply algebraic concepts to geometric problems. Students will also apply the concepts learned to real life applications and problems.

## Geometry Honors

## Prerequisite: Algebra I and Teacher Recommendation

Geometry Honors is the study of the postulates and theorems set down by Euclid. Applications of these principles are shown by the student's ability to read figures and to write proofs. The course provides an in-depth study of the deductive method of reasoning and abstract thinking. The course includes plane, solid, and coordinate geometry.

## Algebra II College Prep

Prerequisite: Algebra I and Geometry (prerequisite or concurrent enrollment)
Algebra ll covers the structure of the real number system and the complex number system. The concepts of functions are further developed including linear, quadratic, exponential, and logarithmic functions. Stress is placed on developing deductive reasoning abilities and precision of language in communications. Students will be given a foundation for future studies in mathematical, scientific, business, and technical fields.

## Algebra II Honors

Prerequisite: Algebra I, Geometry (prerequisite or concurrent enrollment), and department approval

The Algebra II Honors course covers the structure of the real number system and the complex number system. The concepts of functions are further developed including linear, quadratic, exponential, and logarithmic functions. Stress is placed on developing deductive reasoning abilities and precision of language in communications. It is a course for students who are mathematically advanced. Therefore, the subject areas that are covered will provide greater depth and greater challenge than the Algebra II College Prep course.

## SCIENCE

## Anatomy and Physiology

Prerequisite: Biology I
Anatomy and Physiology is an advanced course in Biology. Major emphasis is on the structure and functions of the human body systems with pathology included. Laboratory work includes animal dissection for comparative analysis.

## Chemistry I College Prep

Prerequisite: Algebra I and Algebra II (may be concurrent)
Chemistry $I$ is a laboratory-oriented course that focuses on the scientific method and the importance of precise and accurate measurements. The course includes discussion of inorganic matter, chemical formulas, the mole concept, chemical reactions, atomic structure, chemical bonding and an introduction to organic chemistry.

## Chemistry I Honors

Prerequisite: Algebra I, Algebra II (may be concurrent), and department approval
This course teaches the structure and properties of matter, with a focus on inorganic chemistry. Topics include colligative properties, acid-base chemistry, electrochemistry, and nuclear chemistry. Advanced subjects include elementary thermodynamics, chemical equilibrium, and an introduction to organic chemistry. Laboratory work includes an introduction to AP Chemistry labs.

IBRADE

## SOCIAL STUDIES

## World History College Prep

This introductory survey course traces the evolutionary development of man from the earliest historic times through the twentieth century. This course follows the guidelines from the World History Association, emphasizing globalization and the interaction between the world's various cultures and regions. Appropriate emphasis will be placed on the development and application of basic social studies skills.

Dual Credit through Dallas College available for qualifying students.

## World History AP

## Prerequisite: departmental approval

AP World History is a college-level survey that de-emphasizes European history and incorporates more global trends. Students are expected to master critical thinking skills and argumentative writing, as well as document analysis. Emphasis is placed on the AP curriculum in preparation for the AP test in May. Students will be expected to learn and master computer application programs and mapping technology. Students are expected to participate in class discussions, debates, and in-class presentations. The reading and writing expectations of this course are extensive, and the class is very fast-paced.

Dual Credit through Dallas College available for qualifying students.

## THEOLOGY

## Theology II

The sophomore course of study focuses on the Paschal Mystery of Christ and what it means to be the Church. Students will focus on Jesus' redemptive power seen through his life, death and resurrection, and how we, who share in Jesus' redemptive power, can be shaped by it, and, in turn, are called to shape the world. Students will study the Church, its origin, its structure, the Marks of the Church, and its mission, and come to understand why belonging to, why "being Church" is essential.

## HEALTH

## Semester Course

This course is designed to assist individuals in analyzing health problems in their own school community situation with a view toward working out a well-coordinated health program to meet school and community needs. This course covers general physical, mental, and social health areas. Course is typically taken in $10^{\text {th }}$ grade. This course can be completed through Dual Credit program at Dallas College in the summer upon completion of the TSI exam*.

Dual Credit through Dallas College available for qualifying students.

## WORLD LANGUAGE

## Russian I

In this beginners' Russian language course, students will learn the Cyrillic alphabet and the fundamentals of Russian pronunciation. Students will acquire knowledge of the language through the use of varied activities that develop contemporary conversational, reading and writing skills. The course also provides an introduction to modern Russian culture. Benchmark proficiency: Novice low to Novice high.

## Russian II

## Prerequisite: Russian I

Russian II builds on the foundation established in Russian I by expanding vocabulary, grammatical, reading, writing and speaking knowledge and skills. This course will stress detailed examination of the Russian Language and culture based on multimedia material used in Russian I. Students will acquire additional proficiency and fluency in speaking, reading, and writing Russian in practical situations. Benchmark proficiency: Novice mid to Intermediate Low

## Russian III

## Prerequisite: Russian II

This course further develops skills learned in Russian II, with an emphasis on acquiring more advanced writing, speaking, reading, and listening skills. Accuracy in these four target areas will be emphasized through the study of grammar, vocabulary, and culture. Students will read passages from Russian literature while also learning practical uses of Russian for conversational purposes. Russian III seeks to prepare the student for achievement tests for placement exams in college and the national seal of biliteracy. Benchmark proficiency: Intermediate low to Intermediate high.

## Advanced Russian

## Prerequisite: Russian III

This course is a total immersion Russian course for students who wish to further develop the writing, speaking, reading, and listening skills they acquired in Russian III. Accuracy and fluency in these four target areas will be emphasized through the study of grammar, vocabulary, and culture. This course will also prepare the student for achievement tests for placement exams in college and the national seal of biliteracy. Benchmark proficiency: Intermediate mid to advanced mid with a broadened vocabulary in abstract language.

## Spanish I College Prep

As a beginning course for college-bound students, Spanish I seeks to develop fundamental skills in the four basic areas of language: speaking, understanding, reading, and writing. With a heavy focus on input based activities through reading and listening. It includes an introduction to the culture of the Spanish-speaking world. Benchmark proficiency: Novice low to Novice high.

## Spanish I Honors

## Prerequisite: Teacher Recommendation

This course is designed to build upon fundamental listening and speaking capabilities of students. The course will also develop and increase underlying skills in reading, spelling, and writing competency and creativity while improving overall language skills for use with mass communication and daily life situations with a focus on basic academic language beyond the familiar use. Benchmark proficiency: Novice high to Intermediate low.

## Spanish II College Prep

## Prerequisite: Spanish I

Spanish II continues the development of skills in all four areas of language, through input-based activities and authentic sources that provide cultural awareness as well as cultural studies in the native language. Writing and Speaking carry a heavier load and are heavily supported by communicative tasks and comprehensible input. Benchmark proficiency: Novice mid to Intermediate Low.

## Spanish II Honors

## Prerequisite: Spanish I Honors and Teacher Recommendation

This second course is designed to build upon the fundamental listening and speaking capabilities that were strengthened in Spanish I Honors. The course will also further develop and increase the underlying skills that were augmented in reading, spelling, and writing competency and creativity while improving even further overall language skills for use with mass communication and daily life situations, broadening academic vocabulary is expected and supported by authentic resources aligned with AP curriculum Benchmark proficiency: Intermediate low to intermediate high.

## Spanish III College Prep

Prerequisite: Spanish II
Continuing the study of culture as well as the development of skills in all four areas of language, Spanish III seeks to prepare the student for achievement tests for placement exams in college and the national seal of biliteracy Benchmark proficiency: Intermediate low to Intermediate high.

## Spanish III Honors

## Prerequisite: Spanish II H and Department Approval

This course is designed for the serious students of Spanish who wish to develop their performance in the language skills, but who need to work towards the proficiency in those language skills in a intermediate mid to advanced low. The content of this course will reflect the intellectual interests shared by the students and teacher (the arts, history, current events, literature, culture, sports, etc.) and will encompass both formal and informal language styles. Summer enrichment assignment required. Benchmark proficiency: Intermediate mid to advanced low with a broadened vocabulary in abstract language. This course seeks to prepare the student for achievement tests for advanced placement in college and the national seal of biliteracy.

## ELECTIVES

## Physical Education Department

## Athletic Development

The Athletic Development course aims to grow and develop our student-athletes through individual skill development, strength and agility training, conditioning, team practices (when possible) as well as lessons of self-discipline, accountability, and perseverance. The course is available to Bishop Dunne student-athletes in grades 9-12. Students can be placed in the Athletic Development course as long as it works with their schedule and does not conflict with an academic course requirement.

## Dance

## Semester Course

Dance $I$ is an introduction to contemporary, lyrical, hip hop, jazz, and modern dance technique. Students will learn conditioning exercises, basic dance warm ups and stretches, and perform lyrical and jazz combinations as a class. Students will also learn dance terminology, choreography, and history.

## Strength

## Semester Course

This course focuses on the different aspects and processes in maintaining a healthy lifestyle. Students will learn about the dietary needs of the human body and healthy eating. The students will learn the benefits of a fitness routine, ranging from weights to cardio-vascular exercise to movement exercises such as yoga and Pilates. The course will combine theory and practice, so the informed student will have the tools to pursue a healthier lifestyle.

## Yoga

## Semester Course

Yoga is a form of exercise that gets one in tune with the body's muscles, improves posture, expands breathing capabilities and aids in physical and mental well-being. Focused in developing strength, balance and flexibility, the semester-long course will help increase concentration levels and vitality as well as decrease stress and improve mental clarity. This class is geared toward beginners.

## FINE ARTS

## Visual Arts

## Art Appreciation

## Semester Course <br> Restricted to Dallas College Dual Credit Students

A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts.

Dual Credit awarded through Dallas College for qualifying students.

## Introduction to Art

## Semester Course

Introduction to Art is an introductory studio drawing course with emphasis on developing basic drawing skills and fundamental design and composition concepts. In addition to technical skills, an exploration of creative thinking, problem solving, and critical analysis will be studied. Students will be encouraged to develop an expression of individual style.

## Drawing and Painting

Prerequisite: Intro to Art

## Semester Course

Drawing and Painting is an intermediate studio drawing and introductory painting course. Students will continue development of drawing skills and design principles learned in Art I, and will be introduced to painting tools and techniques. Color theory will be an integral part of the course studies and projects. Students will be encouraged to develop an expression of individual style.

## Advanced Painting

Prerequisite: Intro to Art and Drawing and Painting

## Semester Course

Advanced Painting is an advanced painting course for students who would like to continue to develop their painting skills. Further emphasis will be placed on color theory and composition. Students will be encouraged to develop an expression of individual style.

## Photography 1

Prerequisite: Intro to Art
Requirements: DSLR personal camera, laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks/Windows SE are not compatible)

## Semester Course

Photo 1 is an introductory digital photography course. Students will explore basic photography techniques, including an understanding of camera mechanics, digital manipulation, digital darkroom techniques, and design and composition concepts. Students will be encouraged to develop an expression of individual style.

May be used as a technology or art credit.

## Photography 2

Prerequisite: Photo 1
Requirements: DSLR personal camera, laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks/Windows SE are not compatible)

## Semester Course

Photo 2 is an intermediate photography course. Students will continue the development of digital photography and Photoshop skills learned in Photo 1 with an in-depth look at advanced photography techniques and design concepts. Students will be encouraged to develop an expression of individual style.

May be used as a technology or art credit.

## Yearbook

Prerequisite: Teacher Recommendation

Requirements: Laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks/Windows SE are not compatible)

Year Long Course
The Yearbook course at Bishop Dunne is an elective course that works toward the completion and selling of a large finished, printed product, which provides students with marketable experience in journalism, photography, digital image editing, and print media publishing. In class, students compose and edit all elements of the project, including formatted text, layout, graphic art, and digital photography. Students are assigned or elected to certain duties as well as pages in the book and must meet all deadlines imposed by the project manager or adviser. The course covers many of the content standards and objectives encountered in English courses, graphic arts, business, and computer technology courses. Students will learn journalism techniques, including layout and design, writing and editing copy, headlines and picture captions, interviewing and reporting, and photography. Students will learn proofing strategies and work together to agree on the book's theme and layout. At times, deadlines may require that staff members work after school, on weekends, and holidays.

May be used as a technology or art credit.

## THEATRE ARTS

## Theatre I

## Semester Course

Theatre Arts I will introduce students to the conventions of theatre including its history and traditions. Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, critical thinking, problem solving, and collaboration skills. Participation and evaluation in a variety of theatrical experiences will afford students opportunities to develop an understanding of self and their role in the world.

Course also fulfills Speech requirement for graduation.

## Theatre II

## Semester Course

Theatre Arts II aims to continue the work started in Theatre Arts I. In this course, students will further their understanding of acting by learning multiple acting techniques, analyze the structure and ideas of multiple genres, characters, and themes, as well as experience the multiple creative roles of theatre through performance. The class also aims to ensure students develop effective voice and diction while practicing safe acting techniques. Students will also create a portfolio of work (containing monologues and possibly songs) for auditions, aiming to prepare them for local
and collegiate theatre opportunities. This will result in a final portfolio project in which students will record "self-tapes" for submission.

## Technical Theatre I

## Semester Course

Requirements: Grades 9-12
In Technical Theatre I, students will get the chance for a more hands-on approach to the technical side of theatre. Students will learn about the history of the technical side of theatre, as well as what implementations are present in theatre today. Through a variety of experiences with diverse forms of storytelling and production, Technical Theatre I will afford students the opportunity to develop and exercise creativity, intellectual curiosity, critical thinking, problem solving, and collaborative skills. Participation and evaluation in a variety of theatrical experiences will afford students opportunities to develop an understanding of self and their role in the world.

May be used as a technology or fine arts credit.

## Music Theatre Appreciation

Prerequisite: Grades 10-12

## Semester Course

Music Theatre Appreciation is a course focused on the appreciation of the world of Musical Theatre. In this course, students will explore the rich history of musical theatre, develop an understanding of the differences between the genres and styles, analyze both text, song, and dance, as well as breakdown the shows themselves. Students will engage with shows (either through video, audio, or live performance) to develop their opinions of the live performance art form. We will also explore the socio-political interactions between musical theatre and the public.

## MUSIC

## Band Fundamentals

Band Fundamentals is offered to allow 9-12th grade students the opportunity to learn band fundamentals for winds or percussion before participating with the advanced band or percussion ensemble. Completion of this class should yield mature, informed, disciplined, and competent young musicians, prepared for advanced and marching band.

## Advanced Band

Advanced Band is for all 9-12th grade experienced musicians; the focus is on performances, preparations for auditions (high school and college), and more advanced literature. Completion of this class should yield mature, informed, disciplined, and competent young musicians, prepared to participate with college ensembles by the end of their senior year.

## Advanced Honors Band

Prerequisite: Music faculty/departmental approval. Automatic acceptance granted to All-State Musicians and/or musicians that have earned a superior rating at state solo-ensemble.

Although mostly focused on grade 11 and 12 musicians, Advanced Honors Band is open to 9-12th grade experienced musicians based on acceptance. This class meets and prepares at the same time as the advanced band and includes advanced band expectations of advanced musicianship, a strong performance history as well as additional assignments and an increased focus on individual musicianship. This class will be weighted at the 4.5 level.

## Choir

## Semester Course

Choir is for all 7-12th grade beginning or experienced musicians; the goals of the class will be tailored to the needs of the students with a focus on music literacy, basic theory, and performance techniques. Musicians will be performing various styles of music. There will be performance opportunities for the individual and well as the ensemble, as appropriate.

## Advanced Choir

Prerequisite: One semester of Choir or Department approval
Advanced Choir is for all 7-12th grade experienced vocalists who have completed at least one semester of Choir; the goals of the class will be tailored to the needs of the students with a focus on music literacy, further development theory, sight-singing, and performance techniques. Musicians will be performing various styles of music, with each month of the course being focused on a different genre of choral music. There will be performance opportunities for the individual and the ensemble, as appropriate. Students will also build a portfolio to be used in the audition process for competition, collegiate studies, or outside performance.

Completion of this class should yield matured, informed, disciplined, and competent young musicians, prepared to participate with college and professional ensembles by the end of their senior year.

## String Orchestra

Beginning String Orchestra (Violin, Viola, Cello, String Bass) is an exploratory class with emphasis on individual achievement as well as group performance standards. Students are asked to invest in their musical studies to gain a genuinely enjoyable emotional, spiritual and musical time as well as help in academic achievements and teamwork abilities. No previous musical experience is necessary to join this class.

## Advanced String Orchestra

## Prerequisite: Audition or intermediate string orchestra

Advanced String Orchestra (violin, viola, cello, string bass) synthesizes the lessons from beginning and intermediate orchestra classes into strategic directions and goals, individually and collectively. Performances include concerts at Bishop Dunne as well as competitive and invitational events both on and off campus. Students will be invited to consider long-term individual goals such as playing at family functions, regional or state competitions, as well as how these individual goals support the continued success of the string orchestra program at Bishop Dunne.

## Advanced Honors String Orchestra

## Prerequisite: Audition before music faculty and departmental approval

Advanced Honors String Orchestra (violin, viola, cello, string bass) is the highest level of string orchestra playing on Bishop Dunne's campus. Students perform as a part of the Advanced String Orchestra while preparing leadership positions both musically and socially within the larger contest of our orchestra program and Bishop Dunne musical family. Performing as a soloist, small ensemble member, and larger orchestra is expected of young people enrolled in this course. This class will be weighted at the 4.5 level.

## AP Music Theory

Prerequisite: Previous music skills including the ability to read and write musical notation, and departmental approval

AP Music Theory will teach students how to learn to recognize, understand, and describe the basic materials and processes of music. You'll develop skills by listening to, reading, writing, and performing a wide variety of music.

## Marching Band (Fine Arts Credit)

## Fall semester

Marching Band is aimed at experienced $9^{\text {th }}-12^{\text {th }}$ grade musicians and interested and capable $7^{\text {th }}$ and $8^{\text {th }}$ grade musicians. This is the most active and well known of the ensembles, performing at football games, parades, marching contests, etc. This is a class for a grade, and it will meet on Tuesday/Thursday from 7:00 a.m.-8:15 a.m. Extra rehearsals may be called as needed. Students who have participated in this class in the fall will be expected to participate in any marching events during the spring semester.

Completion of this class should yield mature, informed, disciplined, and competent young musicians, prepared to enter the college marching and pep band levels by the end of their senior year.

## Marching Band (Physical Education Credit)

## Fall semester

Marching Band is aimed at experienced $9^{\text {th }}-12^{\text {th }}$ grade musicians and interested and capable $7^{\text {th }}$ and $8^{\text {th }}$ grade musicians. This is the most active and well known of the ensembles, performing at football games, parades, marching contests, etc. Unlike the Fine Arts section of the class, this is class is not for a grade, but rather for a PE credit to count towards graduation. The band meets on Tuesday/Thursday from 7:00 a.m.-8:15 a.m. Extra rehearsals may be called as needed. Students who have participated in this class in the fall will be expected to participate in any marching events during the spring semester.

Completion of this class should yield mature, informed, disciplined, and competent young musicians, prepared to enter the college marching and pep band levels by the end of their senior year.

## Jazz Band

## Spring semester

Jazz Band is open to 6-12th grade musicians as ability level allows; the focus of the ensemble is to learn basic jazz styles and beginning improvisation concepts. This is a highly sought after ensemble that may have unique performance opportunities, depending on the preparations of the ensemble. Those looking to join the jazz band in the spring should begin rehearsing when the ensemble starts in mid-late November, as they prepare for the Christmas Concert. The class will meet at the marching band class time at the conclusion of necessary marching rehearsals: Tuesday/Thursday at 7:00 a.m.-8:15 a.m.

Completion of this class should yield mature, informed, disciplined, and competent young musicians who are knowledgeable about the history of jazz and its impact on America, as well as being basically competent at several jazz styles.

## TECHNOLOGY

## BCIS - Business Computer Information Systems: Computer Applications

Semester Course

Prerequisites: Dallas College Dual Credit students only. Must have a laptop capable of running full versions of Microsoft 365 (Chromebooks are not compatible to complete coursework).

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.

Preference is given for students that are part of the Collegiate Academy as it is required by Dallas College for that program.

## AP Computer Science Principles

AP Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. It is important to note that the AP Computer Science Principles course does not have a designated programming language. Teachers have the flexibility to choose a programming language(s) that is most appropriate for their students to use in the classroom. This class will be weighted at the 5.0 level.

## Engineering 1

Prerequisite: Grades 10-12

## Semester Course

Students work through the design process using progressively sturdier materials. The process includes making technical drawings, creating supply lists, estimating costs, building scaled up models, followed by building full-scale constructs. Projects typically progress from paper, toothpicks, cardboard, and wood to mixed media. Students often build bridges, catapults, furniture, several types of vehicles, and final practical projects of their own choosing. Only upperclass students (10-12th grade) may choose this semester elective. Some building materials are supplied but specialty projects require student purchase of their own supplies.


## Engineering 2

Prerequisite: Engineering 1

## Semester Course

Students will apply design principles learned in CAD or Engineering to build and refine major projects. Students can choose to create machines, design, build or 3D print structures, develop programming sequences for complex tasks in ground or flight-based automated vehicles, or build out Arduino/raspberry pi projects. Students will work in a maker space environment to bring researched designs to fruition for both competition and use in practical settings ideally to aid in service learning scenarios. Many projects will require students to be responsible to provide some of their own supplies as part of the engineering process.

## GeoTech: Intro to Drones, GPS \& GIS

## Semester Course

This is a basic introduction course in geospatial/mapping technologies. Students will learn the fundamentals in both manual and automated flying of UAV's (Unmanned Aerial Vehicles) and how to convert the images collected into 3D environments and high-resolution mosaic sets. Students will also use Global Positioning System (GPS) units to collect and analyze data for search and rescue applications and to conduct field data collection for tree or animal surveys. Finally, students will learn the basics of using layered mapping GIS (Geographic Information Systems) to study local projects and issues like violent crime and also take part in global humanitarian online efforts for the International Red Cross for disasters like hurricanes or earthquakes.

## Advanced Tech-GIS Applications

## Prerequisite: Departmental Approval Required

Students who sign up for this independent research class must first define a project using spatial and scientific technology and work with mentors and coordinators. Students represent the story of what they determine is important and regularly report verified findings while refining their question to remain on target in solving questions in these fields. Students will be mentored in telling their stories powerfully with media and data gathered for maximum impact from professionals in the field. Students are encouraged to summarize their work in conference proceedings, written articles, and reports for agencies in which they become involved. At least one presentation is expected at a conference of our planning such as Bishop Dunne's GeoTech or Esri's summer educational summit or at a science or Geography Teachers conference in the fall. In preparation for such events students may be required to spend additional time outside of class to process information gathered or reports generated. This class will be weighted at the 5.0 level.

Gaming<br>Requirements: Laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks are not compatible)

## Semester Course

Gaming is a hands-on elective designed to challenge both novice and computer savvy students alike. The course curriculum concentrates mainly on the development of casual games using the MIT program Scratch and Adobe's Flash. The focus will be on gaining an understanding of the various programming languages and platforms used for developing casual 2D games; the basic elements of scripted actions; Flash AS2 and AS3; file and folder management; etiquette and copyright guidelines; developing an understanding of both casual and complex gaming; and ultimately the publishing of finished games for posting on the Internet and for public play.

## Advanced Gaming / VR

Prerequisite: Students must have prior knowledge of coding and have completed one of the following courses: Gaming, Robotics or Engineering. Courses outside of Bishop Dunne and coding camps may also be considered.

## Semester Course

In the Advanced Gaming and VR course, students will work in a Team environment to create 2D and 3D games mainly in the Unity Technologies game engine. Unity is a flexible, real-time development environment for virtually all modern computer platforms that is the basis for many, if not most, virtual reality and augmented reality experiences. Students will use a variety of skills including audio and graphics design, logic and coding, knowledge of gameplay to create working games and VR experiences.

## Graphic Design

## Prerequisite: Intro to Art

Requirements: Laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks are not compatible)

## Semester Course

Graphic Design is a foundation graphics course utilizing computer media with an emphasis on design elements and principles. Typography, illustration, digital imaging, and manipulation of images will be covered. In addition to technical skills, an exploration of creative thinking, problem solving, and critical analysis will be studied. Students will be encouraged to develop an expression of individual style. In addition to technical skills, an exploration of creative thinking, problem solving, and critical analysis will be studied. Students will be encouraged to develop an expression of individual style.

May be used as a technology or art credit.

## Graphic Design II

## Prerequisite: Graphic Design I

Requirements: Laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks are not compatible)

## Semester Course

The core emphasis of this course covers the history of typography, an introduction to page layout design (both for print and online environments), as well as a study of influential designers. Strong emphasis is placed on the history of type and the technical, problem-solving and aesthetic use of display and text type. Through lectures, demonstrations, and studio work, students are introduced to the creative thinkers, important innovations, and breakthrough technologies that have shaped the evolution of visual communication. Creative thinking is encouraged, along with prescribed techniques and media.

May be used as a technology or art credit.

## Robotics

## Semester Course

Students will learn the foundations of robotics and how they are used in the modern world today. A variety of coding environments will be explored, including MIT Scratch, Minecraft in Education, Lego EV\# Mindstorm Education and Microsoft's Make Code. Upon completion of the course, the successful student will understand the basics of robotics and robot design, their use in everyday life and the ability to safely apply these concepts in the laboratory.

## Advanced Robotics

## Semester Course

Students will build upon the foundations from the Beginning Robotics class. Upon completion of the course, students will be able to design, test, and refine a number of robots and understand the use of robotics in daily life. Students will also mentor beginning robotics classes.

## Web Design

Requirements: Laptop/computer compatible with Adobe Creative Suite software (iPad/Chromebooks are not compatible)

## Semester Course

The Web Design course is a hands-on elective designed to challenge both novice and Web savvy students alike. The focus will be on gaining an understanding of the various programming languages and platforms used on the Web; original content creations using various Adobe programs; the basic elements of Internet protocol; Web server software; formatting of pages; file
and folder management; etiquette and copyright guidelines; developing a specific purpose and goal for the site; and ultimately the publishing of Web site projects on the Internet for public view.

## OTHER ELECTIVES

## Animals \& Humans

Semester Course
In this Semester Course students will identify and explore various species of domestic animals, as well as other wildlife, with concentration on those indigenous to Texas. Students will also learn about the procedures taken by rescue groups and shelters in reference to stray animals. Students will examine basic veterinary medical procedures and legal aspects of animal cruelty. This course will be reinforced with caring for the animals in the school animal wellness lab, lab experiments, projects, and research. Other topics include, but are not limited to the following: agriculture, adoption and pet care, animal assisted therapy, animal behavior and training, animal systems modeling, forensics and toxicology, human-animal interaction, husbandry, and animal systems.

## Sports Medicine

Sports medicine is designed for students interested in fields such as athletic training, physical therapy, medicine fitness, physiology of exercise, kinesiology, nutrition, and other sports medicine related fields. The course includes class work and practical hands-on application in the following areas: prevention, treatment, and rehabilitation of sports injuries, taping, and wrapping injuries, first aid/CPR, emergency procedures, basic nutrition, and sports medicine careers.

## Psychology College Prep

## Semester Course

In Psychology, an elective course, students study the science of behavior and mental processes. Students examine the full scope of the science of psychology such as the historical framework, methodologies, human development, motivation, emotion, sensation, perception, personality development, cognition, learning, intelligence, biological foundations, mental health, and social psychology.

## Psychology Dual Credit - PSYC 2301

Restricted to Dallas College Dual Credit Students

## Semester Course

General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.

