2023-2024

Elective Course Descriptions

Art

2D Design 6-8 (Semester)

The purpose of this course is to introduce students to a variety of art mediums while gaining a strong understanding of Studio Habits of the Mind. Students will learn new approaches to drawing and painting, including but not limited to perspective, portraiture, color theory, and art history and criticism. This course is intended to provide foundations for Advanced 2D Design.

3D Design: 7-8 (Semester)

This introductory course offers students the opportunity to learn a variety of ceramic and sculpture techniques and terminology. The ceramic portion of the class will focus on the hand building methods slab, coil, and pinch pot. The primary focus of this class is on the art of ceramics but will also incorporate sculpture. Students may use a variety of mixed media including clay, paper mache, plaster, wire, woodcarving, and glass as this course prepares students for Advanced 3D Design.

Advanced 2D Design: 7-8 (Prerequisite: 2D Design) (Semester)

Advanced 2D Design is a studio based course that expands on the knowledge and skills learned in 2D Design. Students will extend and explore knowledge of mediums including drawing, painting, digital media, mixed media and more. This course will consist of studio project based learning, and activities that will boost student critical thinking habits, improve critical collaborative participation, grow creativity and develop communication skills through writing and talking about art. This course focus is an exploration of the art world based on the fundamentals of the Studio Habits of the Mind and student driven learning in art studios of choice.

Advanced 3D Design: 7-8 (Semester)(Prerequisite: 3D Design)

Advanced 3D Design is a studio based course that expands on the knowledge and skills learned in 3D Design. Students will extend and explore knowledge of mediums including ceramic hand building techniques, wire, woodcarving, paper mache, and plaster. This course will consist of studio project based learning, and activities that will boost student critical thinking habits, improve critical collaborative participation, grow creativity and develop communication skills through writing and talking about art. This course focus is an exploration of the art world based on the fundamentals of the Studio Habits of the Mind and student driven learning in art studios of choice

Computers

Computer Applications: 6-8 (Semester)

In this course students will learn computer science skills at a personalized learning pace. Students will be given the opportunity to learn about the problem solving process, web development, interactive animations and games, as well as physical computing (circuit boards). The goal of this class is to make computer science accessible to students at all learning and readiness levels and to experience math and science in a new way. This will enable them to gain access to exploring careers in the tech field while in middle school.

Digital Media I: 7/8 (Semester)

In this basic course, students will learn to create, manage, and store different types of digital media including music, podcasts, photos, still images, and a website. Students will learn the basics of photography and digital camera and scanner usage.

Digital Media 2: 7/8 (Semester)(Prerequisite: Digital Media 1)

In this advanced course, students will continue their study of digital media with topics such as: enhanced podcasts with audio and photos, advanced photo manipulation, video, website design, and learning about blogs and wikis. Students will also learn the basics of camcorder usage.

Essentials

Reading Essentials 6 (Full Year)

Qualified students will learn a variety of reading strategies that foster independence in reading. By using a wide range of material, i.e., novels, plays, textbooks, magazines, charts, etc., students will have an opportunity to become lifelong readers.

Mathematics Essentials 6 (Full Year)

Mathematics Essentials 6 is designed to support students as they take their grade level math by reinforcing skills needed for day to day learning and to help students strengthen other areas of

weakness by personalizing learning to their needs. There will be a focus on the mathematical processes of problem solving, reasoning, communicating, and connecting mathematical concepts to real life. The goal for students in this course is to fill gaps in their math understanding which remain from lower grade levels, with a view to raising the overall level of their mathematical skills.

Reading Essentials 7 (Full Year)

This course will provide qualified students with an opportunity to participate in instruction that ranges from individualized work to small and large group activities. A Reading Specialist will offer these students a variety of reading strategies that foster independence in reading. The Reading Plus Program will be used; as well as novels, magazines, and other reading and instructional materials. This course is designed to help students increase their level of comprehension, fluency, vocabulary, and word attack skills. This course supports and motivates struggling readers as they progress toward grade level reading success and lifelong learning.

Mathematics Essentials 7 (Full Year)

Math Essentials 7 is a course designed to support students by reinforcing skills and concepts that are taught in Mathematics 7 through front loading as well as review. This course will also be used to strengthen areas of weakness by personalizing learning to meet specific needs and raise overall mathematical skills and understanding.

Reading Essentials 8 (Full Year)

This course will provide qualified students with an opportunity to participate in instruction that ranges from individualized work to small and large group activities. A Reading Specialist will offer these students a variety of reading strategies that foster independence in reading. The Reading Plus Program will be used; as well as novels, magazines, and other reading and instructional materials. This course is designed to help students increase their level of comprehension, fluency, vocabulary, and word attack skills. This course supports and motivates struggling readers as they progress toward grade level reading success and lifelong learning.

Math Essentials 8 (Full Year)

Math Essentials 8 is a course designed to support students by reinforcing skills and concepts that are taught in Mathematics 8 through front loading as well as review. This course will also be used to strengthen areas of weakness by personalizing learning to meet specific needs and raise overall mathematical skills and understanding.

Academic Lab 6-8 (Semester)

Academic Lab is a structured time for students to complete work at school which may have been assigned for homework. This time allows for busy students who have activities or other responsibilities outside of school an opportunity to complete class work at school. Students enrolled in this class must bring class work every day, which is not limited to written work. Work also includes studying and reading course work. Teachers will actively monitor students' daily work and provide a variety of structures which may help students organize to reduce the

number of assignments that are incomplete. Students may select or be placed in an academic lab with administrator approval and discretion. The students will receive a pass or fail grade.

Explore Lab

Explore Lab: 6-8 (Semester)

Explore Lab is an inquiry-based class where students can explore different topics which will be of interest for future courses at Heights. Topics can and will rotate throughout the year with different teachers exploring those different interests. Topics which students will learn more about will vary but may include any of these and more: yearbook, journalism and tv newscasts, nature, astronomy, leadership, service learning, digital citizenship through social media, drama and theater, math games, tutoring and classroom aids, and any number of interests which students may take as a future developed course. Students will be given a pass/fail grade as they explore new interests.

Family and Consumer Science

FACS I: 6-8 (Semester)

This course is the first course of three leading to various career pathways in Family and Consumer Sciences. Topics of study include basic food preparation, introductory sewing skills, peer and family relationships and introductory consumer education. Students will use problem-solving and cooperation skills as they individually and collectively to complete projects within these units

FACS II: 7/8 (Prerequisite: FACS 1) (Semester)

This is the second of three courses leading to various career pathways in Family and Consumer Sciences. Topics of study include food preparation and nutrition, sewing techniques, and childcare. Students will build on skills and knowledge learned from the previous course. This class will integrate a variety of curricular areas such as math, science, health and artistic design through the use of projects and labs.

FACS lll: 7/8 (Prerequisite: FACS 2) (Semester)

This is the third and final course which supports various career pathways possible in Family and Consumer Sciences. Topics of study include food science and foods around the world, advanced sewing skills, and interior design concepts. Using their prior knowledge from the sewing and foods units, students will expand on this learning to select a more personalized learning experience. Students will make predictions about outcomes based on previous learning and analyze the results, thus supporting critical thinking skills.

Foreign Language

Introduction to World Cultures and Languages: 6-8 (Semester)

Students in this course will explore each of the languages offered in Pattonville and will also be introduced to cultures, both current and historic, in order to better understand the impact of culture in their community and the world. To prepare students to be productive citizens in a global society, students will learn about different perspectives to cultivate an appreciation for diversity. Students will also explore their own interests through a variety of choice activities and research projects investigating different cultures and languages.

French I-A (Full Year)

French I is the introduction of basic speech patterns and structures of French with an emphasis on listening and speaking, followed by written practice. Students learn to talk about themselves, their family, and their interests. They will also learn to formulate simple answers and questions on everyday matters. A wide variety of audio and visual materials are frequently used at this level.

Passing both levels of a modern language (Spanish 1A and 1B or French 1A and 1B) will count as a high school credit and the first year of language study in that language.

Spanish I-A (Full Year)

Spanish I is an introduction to the sounds and rhythm of the Spanish language. Through the use of short conversations, students acquire a basic vocabulary and grammar to use in listening, speaking, writing, and reading. Students also gain a better understanding of Spanish speaking people and countries. Spanish I blends oral and written work in developing a basic command of the vocabulary, grammar, and syntax of the language. Spanish I contains instruction in listening comprehension, speaking, reading, translating, and writing. Students will acquire an elementary knowledge of the principles of pronunciation, spelling, structure of the language, grammar, and vocabulary, geography and culture of the Spanish-speaking countries. Students will learn to formulate questions and answers on a variety of topics pertaining to everyday matters.

Passing both levels of a modern language (Spanish 1A and 1B or French 1A and 1B) will count as a high school credit and the first year of language study in that language.

French I-B: 8 (Full Year)

(Prerequisite: French 1-A or teacher approval)

French I is the introduction of basic speech patterns and structures of French with an emphasis on listening and speaking, followed by written practice. Students learn to talk about themselves, their family, and their interests. They will also learn to formulate simple answers and questions on everyday matters. A wide variety of audio and visual materials are frequently used at this level.Passing both levels of a modern language (Spanish 1A and 1B or French 1A and 1B) will count as a high school credit and the first year of language study in that language.

Spanish I-B: 8 (Full Year)

(Prerequisite: Spanish 1-A or teacher approval)
Spanish I is an introduction to the sounds and rhythm of the Spanish language. Through the use of short conversations, students acquire a basic vocabulary and grammar to use in listening, speaking, writing, and reading. Students also gain a better understanding of Spanish speaking people and countries. Spanish I blends oral and written work in developing a basic command of the vocabulary, grammar, and syntax of the language. Spanish I contains instruction in listening comprehension, speaking, reading, translating, and writing. Students will acquire an elementary knowledge of the principles of pronunciation, spelling, structure of the language, grammar, and vocabulary, geography and culture of the Spanish-speaking countries. Students will learn to formulate questions and answers on a variety of topics pertaining to everyday matters.Passing both levels of a modern language (Spanish 1A and 1B or French 1A and 1B) will count as a high school credit and the first year of language study in that language.

Industrial Technology

Industrial Technology: 6-8 (Semester)

Industrial Technology is a class for students who like to use their hands and minds to build and create things. It challenges them to apply their creativity and technical ability. Following the process of research and design, students will construct CO 2 Car projects using technology, as well as hand and power tools. Students will then have the opportunity to move into the Structural Engineering unit where they will be able to design, build, and test their own bridge. Safety, individualized work, and problem solving will be emphasized.

Woodworking: 7/8 (Semester)

This course is an introduction course to the different areas of drafting and woodworking. Students will become familiar with methods and processes used by the drafting industry. These processes include: using the correct drafting tools, techniques, lettering, multiview drawings, dimensioning and pictorials. For the woodworking portion of this course, the students will explore the numerous woodworking areas through the use of tools, machines and materials that are basic to each area. The areas to be explored include: sawing, drilling, filing/chiseling, wood joinery, wood turning, sanding and finishing. This course will allow students to use their skills and create projects using the specific areas listed above.

Music

Orchestra 6 (Full Year) (Prerequisite: 5th grade orchestra or Director approval after audition)

Orchestra 5-6 is a two-year course in which students receive beginning instruction. Students are developing knowledge and skills to become well-rounded musicians who appreciate the art, science and social aspects of music, since it reflects the culture and time period in which it was created.

Through playing, listening, reading, improvising and composing, the child will gain knowledge and performance/evaluative skills related to the musical elements of rhythm, melody, texture/harmony, expressive qualities, form, and tone color, which leads to high-quality student performance. Beginning technique and performance is the focus of this course. Public and/or in-class performance is an important experience of the art of music and is a natural extension of the essential elements acquired through music instruction, however it is not the primary focus. Student progress is formally reported as a part of the building's report card schedule. Outside practice is required as well as attendance and participation at all scheduled performances.

Band 6 (Full Year)
Sixth grade band is the first year of band in the Pattonville School District. No experience is required to participate in a 6th grade band class. Students will learn the fundamentals of music and performing in a group. All rehearsals and performances contribute to each member's grade in the class because they are a demonstration / application of all students' learned skills. Students who successfully complete their sixth grade year in band are highly encouraged to continue their musical education in 7th grade, 8th grade, and High School.

Choir A: 6 (Full Year)
Beginning Choir is an introductory level ensemble in middle school. Students will establish healthy vocal techniques, broaden their foundation of music literacy, work together in a choral setting, and present a product that demonstrates artistry and refinement. The rigor of this course will increase throughout the year and unit content will be explored concurrently within other units. All performances are mandatory and will be a significant portion of the student's final grade as they are a demonstration and application of their learned skills.

Orchestra 7 (Full Year)(Prerequisite: 6th grade Orchestra or director approval)
Orchestra 7-8 is a two-year course where students receive instruction. Students are developing knowledge and skills to become well-rounded musicians who appreciate the art, science and social aspects of music, since it reflects the culture and time period in which it was created. This course will build on skills learned in the 5th and 6th grade orchestra courses. Instruction will be personalized to meet students' skill levels.

Through playing, listening, reading, improvising and composing, the child will gain knowledge and performance/evaluative skills related to the musical elements of rhythm, melody, texture/harmony, expressive qualities, form, and tone color, which leads to high-quality student performance. Developing technique and performance readiness skills is the focus of this course. Public and/or in-class performance is an important experience of the art of music and is a natural extension of the essential elements acquired through music instruction, however it is not the primary focus. Student progress is formally reported as a part of the building's report card schedule. Outside practice is required as well as attendance and participation at all scheduled performances.

The 7th grade orchestra will be performing three evening concerts: The Fall Strolling Strings Concert, Festival of Strings and Spring Orchestra Concert. Students will also have the opportunity
to go on the Strolling Strings elementary school tour, to audition for the St. Louis All Suburban Honors Orchestra, and to participate in the St. Louis All Suburban Solo-Ensemble Festival.

Band 7 (Full Year)(Prerequisite: 6th grade Band or director approval)
Seventh grade band is the second year of band in the Pattonville School District. Students will have already completed one year of instruction in like instrument classes and will further their knowledge and skills on the same instruments that they played in sixth grade band. This class is an elective choice which meets daily during the school day.

All rehearsals and performances contribute to each member's grade in the class because they are a demonstration / application of all students' learned skills.
Sixth grade band students are highly encouraged to continue their music education in the 7th grade band. The course of study includes review and continued learning of fundamental sound production skills, note reading, rhythm reading, scales, terms, and performance skills. Like 6th grade band, classes at this level meet in like-instrument groups to help students master skills specific to their instruments. The band performs in two evening concerts, as well as the St. Louis All-Suburban Large Ensemble Festival. Members have the opportunity to participate in the Solo and Ensemble Festival and the St. Louis All-Suburban Honor Band auditions.

Orchestra 8 (Full Year)(Prerequisite: Successful completion of 7th grade Orchestra or director approval.)
Orchestra 7-8 is a two-year course where students receive instruction. Students are developing knowledge and skills to become well-rounded musicians who appreciate the art, science and social aspects of music, since it reflects the culture and time period in which it was created. This course will build on skills learned in the 5th and 6th grade orchestra courses. Instruction will be personalized to meet students' skill levels.

Through playing, listening, reading, improvising and composing, the child will gain knowledge and performance/evaluative skills related to the musical elements of rhythm, melody, texture/harmony, expressive qualities, form, and tone color, which leads to high-quality student performance. Developing technique and performance readiness skills is the focus of this course. Public and/or in-class performance is an important experience of the art of music and is a natural extension of the essential elements acquired through music instruction, however it is not the primary focus. Student progress is formally reported as a part of the building's report card schedule. Outside practice is required as well as attendance and participation at all scheduled performances.

Band 8 (Full Year)(Prerequisite: Successful completion of 7th grade Band or director approval.)
Eighth grade band meets daily as a full band to give students more exposure to group performance and more time to work on their music skills. This course continues to build the

fundamental skills learned in 7th grade band, and prepares students for high school band. Students will perform in four evening concerts including Marching Night with the Pattonville High School Marching Band and the annual district-wide Parade of Bands concert in the spring. Students also have the opportunity to participate in the Solo and Ensemble Festival, St. Louis All-Suburban Honor Band auditions, a daytime concert tour to the elementary schools and an overnight trip. Eighth grade band is the third year of band in the Pattonville School District. Students will have already completed two years of instruction and will further their knowledge and skills on the same instruments that they played in sixth and seventh grade band. This class is an elective choice which meets daily during the school day for a full class period in a full ensemble setting. All rehearsals and performances contribute to each members' grade in the class because they are a demonstration / application of all students' learned skills. Students who successfully complete their eighth grade year in band are highly encouraged to continue their musical education in high school.

Choir B: 7-8 (Full Year)

This class is open to all 7th and 8th grade students. Choir students learn to read music, sing in a choral style, and perform a variety of songs. The students present two concerts a year at school and participate in the All District Choir Concert. The students also participate in the St. Louis Suburban Music Educators Large Group Festival, Solo and Ensemble Festival, 7th-8th grade honors choirs and the Six Flags Music Festival. The choirs at Heights also have a Pops Music Festival in the spring. Intermediate Choir is an advanced level ensemble in the middle school. Students will work together in a choral setting to refine healthy vocal techniques, broaden their foundation of music literacy, and present a product that demonstrates artistry and refinement. The rigor of this course will increase throughout the year and unit content will be explored concurrently within other units. All performances are mandatory and will be a significant portion of the student's final grade as they are a demonstration and application of their learned skills.

Project Lead the Way

Flight and Space: 6-8 (Semester)

In Flight and Space students become engineers as they design, prototype, and test models to learn about the science of flight and what it takes to travel and live in space. Students first learn about forces and their impact on aviation and then the fundamentals of flight. Students then begin a study of space. Students learn about rocket science and how humans safely navigate and survive in space. Lastly students solve real-world aviation and space challenges as they plan a mission to Mars.

Medical Detectives: 6-8 (Semester)

In the Medical Detectives, students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on

projects and labs, measure and interpret vital signs, dissect a sheep brain, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction.

Computer Science Basics: 6-8 (Semester)

In this course students will learn computer science skills at a personalized learning pace. Students will be given the opportunity to learn about the problem solving process, web development, interactive animations and games, as well as physical computing (circuit boards). The goal of this class is to make computer science accessible to students at all learning and readiness levels and to experience math and science in a new way. This will enable them to gain access to exploring careers in the tech field while in middle school.

Science of Technology: 7-8 (Semester)

Science impacts the technology of yesterday, today, and the future. Students will apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-materials.

Automation & Robotics: 7/8 (Semester)

During this course students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

Design & Modeling: 7/8 (Semester)

During this course, students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

App Creators: 7/8 (Semester)

PLTW App Creators introduces students to the field of computer science and the concepts of computational thinking through the creation of mobile apps. Students are challenged to be creative and innovative, as they collaboratively design and develop mobile solutions to engaging, authentic problems. Students experience the positive impact of the application of computer science to society as well as to other disciplines, particularly biomedical science. The course provides students opportunities for self-expression. Teams identify a personal or community problem of interest to them that can be solved with a mobile app solution. The problem can address issues such as health and wellness, the environment, school culture, emergency preparedness, education, community service, or another area.

Computer Science for Innovators & Makers: 7/8 (Semester)

This course teaches students that programming goes beyond the virtual world into the physical world. Students are challenged to creatively use sensors and actuators to develop systems that

interact with their environment. Designing algorithms and using computational thinking patterns, they code and upload programs to microcontrollers that perform a variety of authentic tasks. The unit broadens student understanding of computer science concepts through meaningful applications. Teams select and solve a personally relevant problem related with wearable technology, interactive art, or mechanical devices.

Middle School Gifted Program

Sigma: 6-8 (Full Year)

SIGMA curriculum encourages independent and self-directed learning and is designed to meet the academic and affective needs of students. Using an interdisciplinary and multicultural perspective, learning activities emphasize the higher-level cognitive skills of analysis, synthesis, and evaluation. Incorporating a variety of approaches from experts in the field of gifted education, the program curriculum draws from the following major areas: Communication, Critical Thinking, Creative Thinking, Life Skills and Information Processing. **This course will alternate days with P.E.**