

SEVENTH GRADE COURSE DESCRIPTIONS

2016 - 2017

PREFACE

Seventh Grade students will be enrolled in the following required courses: ELA (English Language Arts), mathematics, social studies, science and physical education/health. Each student will also be assigned an advisory class, during which the student will be guided in the areas of social, emotional and academic growth. Students will choose elective classes to fill the remaining class periods. If a student is not achieving at grade level in reading, writing or math, he or she may be enrolled in an intervention class to assist in their academic growth.

In seventh grade, challenge courses are offered for students meeting the qualification listed in each course description. The challenge courses are designed to offer the same curriculum as the non-challenge courses, but with a more compacted, accelerated and in-depth approach. A greater level of student responsibility will be expected for all students in challenge courses. These courses are designed to foster a greater level of student self-directed independence and academic strength.

SCIENCE

(Required, Full Year)

SCIENCE 7

This course will introduce the student to various aspects of physical science and the universe. Some major topics could include matter and energy, force and motion, and the universe. Each unit will build upon the skills of observation, measurement, data collection, inference and experimentation.

SCIENCE CHALLENGE 7 (Teacher Recommendation Required)

Challenge Science is an extension of the regular science curriculum. Students will explore motion, forces and energy, and how their understanding of these concepts helps to explain the motions in the universe. An in-depth study of each of these topics will foster the knowledge expected of all graduates. As students study these topics, they will continue to refine their understanding of scientific processes and to apply their knowledge to various areas of scientific endeavor. In addition to the regular curriculum, students in challenge science will be expected to extend their knowledge by working independently, researching topics, and communicating their findings to their peers.

SOCIAL STUDIES

(Required, Full Year)

SOCIAL STUDIES 7

This course is a study of major cultural areas of the world. An emphasis will be placed on the development of democracy and processes of governance systems. The Old World studies are included to serve as a foundation to the 8th grade American History course. Using the tools of social science inquiry, students will find answers to questions raised during their course of study. Students will be required to read and write within the content area.

SOCIAL STUDIES CHALLENGE 7 (Teacher Recommendation Required)

The Challenge Social Studies curriculum initiates the study of world history to Pattonville students. Emphasis is placed upon three continents in the Eastern Hemisphere: Europe, Africa, and Asia. Instruction is organized around broad unit topics: Classical World, Middle Ages of the World, Age of Exploration and Native Civilizations of South America. Utilizing historical documents throughout each unit, special emphasis is placed on the application of writing and thinking processes. Connections with modern countries and cultures will be made as students move through units.

MATHEMATICS

(Required, Full Year)

MATH 7

This course is designed to develop and practice the algorithms of operations with fractions and decimals. Students will explore ratio, proportion and percentages, classify triangles and quadrilaterals, find the perimeter and area of plane figures and continue the study of measurement, using both standard and metric units. Students will analyze and interpret data in charts and graphs and investigate experimental and theoretical probability. They will study patterns and begin to describe them with equations. In the study of number theory, students will be using the order of operations, properties of numbers and application of primes, composites, factors, and multiples. In addition there will be a focus on mathematical problem solving and communication. Successful completion of this course will qualify a student for enrollment in Pre-Algebra in eighth grade.

MATH CHALLENGE 7 (Teacher Recommendation Required)

Math Challenge 7 is designed for the student with exceptional mathematical skills. Operations with fractions, decimals and integers are emphasized. Students will work with percentages, probability and statistics, plane and solid geometry, including the study of perimeter, area and volume. Solving equations and working with polynomial operations will also be covered. In addition there will be a focus on mathematical problem solving and communication. Successful completion of this course will qualify a student for enrollment in Algebra I in the eighth grade, dependent on grades and prognosis test score.

ELA
(Required, Full Year)

ELA 7

This class is designed to improve the student's communication skills by improving the student's reading, writing, speaking, grammar, drama, spelling, vocabulary, thinking and listening skills. These skills will be emphasized within three basic areas: (1) reading and literature study (2) language, grammar and writing, and (3) study skills/note taking. Teaming among communication arts, social studies, science, etc., occurs throughout the year.

ELA CHALLENGE 7 (Teacher Recommendation Required)

Challenge ELA builds upon the existing ELA curriculum. The challenge offering for 7th-Grade will foster student self-direction and independence, promote self-understanding, incorporate inquiry skills, be relevant to the learner, promote student discovery and encourage the critical and creative exploration of ideas. The course will incorporate instructional strategies leading to the learner outcome of independent study, cooperative learning, and presentation and publishing. Emphasis will be on oral and written analysis, literary critique, producing and publishing written work, research skills as well as speaking and listening.

PHYSICAL EDUCATION / HEALTH 7
(Required, Full Year)

GET YOUR BODY MOVING...IMPROVE YOUR HEALTH...YOUR MIND
AND YOUR ENERGY LEVEL!!!

The daily Co-Ed Physical Education program, through a series of approved activities, promotes good health practices, normal growth and development, self-control, and is a means of self-expression. It is a planned program of team sports, individual and large group activities, rhythms, and tumbling. Through these activities, students will learn rules and develop skills that can be carried into their everyday lives. The health curriculum will be taught by the PE staff during a 6 week session of your child's PE class. It will help students understand what comprises physical, mental, and social health, as well as the balance necessary to maintain overall health and wellness. Topics will include body systems, nutrition, fitness, drugs, tobacco, alcohol, safety, first aid, communicable and non-communicable diseases, and your body – growing and changing.

READING PROGRAM

(Full Year – By teacher recommendation only)

Remedial Reading Services is a delivery of services, by a Reading Specialist, to groups of ten or less students that address the basic categories of reading including: comprehension, word study (phonics, vocabulary, fluency), and higher order reading/thinking skills. The major areas of reading instruction that are covered also include: main idea, sequences, compare/contrast, cause/effect, predicting, inferences, and drawing conclusions. The effort is to offer individual, pair, or small group instruction.

REMEDIAL READING 7

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.

ACADEMIC INTERVENTIONS

(Full Year – By teacher recommendation only)

ELA ESSENTIALS 7

This course is designed for students that need to improve their basic reading and writing skills to be more successful in all classes.

MATH ESSENTIALS 7

This course will focus on basic math skills. Specific gaps will be addressed through conceptually developmental lessons and targeted skill practice.

SIGMA 7 – MIDDLE SCHOOL GIFTED PROGRAM

(Full Year - Specialized Program for students who meet entrance criteria)

Seventh grade students who qualify for the Pattonville Gifted Program will have their educational needs addressed through creative/visual arts, research skills, problem solving, affective education, leadership, and special topics. Class alternates with PE.

PERFORMING ARTS

(Full Year – with the exception of General Music)

BAND 7 (Prerequisite: Successful completion of 6th-Grade band or director approval.)

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 a student master skills specific to their instrument. Public performances are required and will be a contributing factor in the grade for this class.

ORCHESTRA 7 (Prerequisite: Successful completion of 6th-Grade orchestra or director approval.)

Students who played in 6th-Grade orchestra are encouraged to continue in orchestra. Students in 7th-Grade orchestra will continue to develop playing skills on their stringed instrument, learn more advanced note and rhythmic reading, music memorization, learn more advanced scales, will understand and use musical language correctly and will continue developing professional performance skills through playing various styles of music. Above average students may participate in a solo and ensemble contest and audition for membership in the St. Louis All-Suburban Honors Orchestra. Students may also have the opportunity to attend special performances by local musicians. Recent experiences have included attending special concerts at Powell Symphony Hall. This experience will prepare the students for a lifetime of musical enjoyment and appreciation.

MS BEGINNING CHOIR 6/7/8

Emphasis is placed on 2-part and 3-part singing and the development of a good choral sound, reading choral music, understanding the changing voice, and the development of sight-reading skills. All types of music will be performed, and the choir will represent the school in community performances. Public performances, both during and after regular school hours, will be required for this course and will be a major determining factor in the student's overall final grade.

MS INTERMEDIATE CHOIR 7/8 (Prerequisite: Successful completion of Choir – Beginning Level or director approval.)

Emphasis is placed on increasingly complex 3-part music, cambiata vocal timbre, the further development of a good choral sound, reading choral music, and sight-reading skills. All types of music will be performed, and the choir will represent the school in community performances. Public performances, both during and after school hours, will be required for this course and will be a major determining factor in the student's overall final grade.

GENERAL MUSIC 7/8 (Semester Course)

This course will use the computer to review and expand upon the concepts taught in the sixth grade general music exploratory program. Students will complete assignments using several music computer applications and the electronic musical keyboard. Elements of music, such as tone, rhythm, and form, will be taught, as well as music theory and history.

GENERAL ELECTIVES

(Full Year - Some classes may include both 7th and 8th grade students)

FOREIGN LANGUAGE

GERMAN IA 7/8 (Full Year)

This course is an introduction to the German language with emphasis on listening and speaking skills. It will include oral work with students learning basic conversation skills, as well as, basic sentence structure and verb usage. This course is a prerequisite to take German I in the 8th-Grade. Students who successfully complete both level 1A and 1B (8th Grade) can earn one Pattonville High School Credit.

FRENCH IA 7/8 (Full Year)

This course is an introduction to the French language with emphasis on listening and speaking skills. It will include primarily oral work with students learning the basic sounds of French and simple conversation based on everyday usage. Correct sentence structure both oral and written is the main focus. This course is required to take French I in the 8th-Grade. Students who successfully complete both level 1A and 1B (8th Grade) can earn one Pattonville High School Credit.

SPANISH IA 7/8 (Full Year)

This course is an introduction to the Spanish language with emphasis on listening and speaking skills. It will include primarily oral work with students learning the basic sounds of Spanish and simple conversation based on everyday usage. Correct sentence structure both oral and written is the main focus. This course is a prerequisite to take Spanish I in the 8th-Grade. Students who successfully complete both level 1A and 1B (8th Grade) can earn one Pattonville High School Credit.

INDUSTRIAL TECHNOLOGY

INDUSTRIAL TECHNOLOGY 7/8

This class will provide an emphasis upon individual student design and upon hand tools using more complex take home projects. Experiences will include activities involving drafting, woods, electricity, and plastics. A model C02 dragster will be constructed. Safety tests will be required.

GENERAL ELECTIVES (cont'd)
(Semester Courses - Some classes may include both 7th and 8th grade students)

ART

ART ENRICHMENT 7/8

This course is designed for students of all ability levels and serves as an introduction to many basic art-making techniques. This course provides students the opportunity to experiment with both 2-D and 3-D art mediums. Many art forms will be immersed in rich cultural experiences. The primary difference between this course and Drawing I Foundations is that Art Enrichment offers a combination of both **2-D** and **3-D** art forms.

CERAMICS 7/8: Foundations of Ceramics and Sculpture

This introduction course offers students the opportunity to learn a variety of ceramic and sculptural techniques and terminology. The ceramic portion of the class will focus on using slab, coil, and pinch pot methods. 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 this course prepares students for high school Art Fundamentals.

DRAWING I 7/8: Foundations of Two-Dimensional Art

This course offers students the opportunity to experiment with several types of two-dimensional media using a multitude of techniques. Projects may include drawing, painting, computer graphics, and printmaking. The emphasis of this course is to introduce students to a variety of art mediums while gaining a strong understanding of the art elements and principles. This course will help prepare students for high school Art Fundamentals. **All students interested in taking Drawing II must complete this course unless they receive special permission from the instructor.**

DRAWING II 7/8: Mastery and Exploration of Drawing

(Prerequisite Required: Drawing I.)

In this **advanced** course students will continue their study of drawing on a higher performance based level. The course will continue to build on more advanced techniques gained in Drawing I Foundations and serve as an extension of Drawing I Foundations. All students in this class will have the opportunity to complete a drawing portfolio to submit to the high school. Drawing II develops higher-level problem solving skills, creative thinking, and analysis of art. This class will help prepare students for high school Art Fundamentals and Drawing I. **All students interested in taking Drawing II must complete Drawing I unless they receive special permission from the instructor.**

GENERAL ELECTIVES (cont'd)
(Semester Courses – Some classes may include both 7th and 8th grade students)

BUSINESS APPLICATIONS

COMPUTER APPLICATIONS 7/8

Students will implement a variety of technology resources to create multimedia projects and presentations. They will experience the excitement of using a digital camera, scanner, internet application, and cd-roms to enhance all aspects of computer created work. Applications include, but are not limited to: True Basic, PowerPoint, Microsoft Word, Excel, DreamWeaver, HyperStudio, and iMovie.

DIGITAL MEDIA APPLICATIONS 7/8

Learn the basics of digital media creation like movies and web design. Also, learn to use tools to create digital media like digital cameras and camcorders.

TECHNOLOGY INTEGRATION 7/8

Learn basic computer techniques including web quests, internet research, and digital imaging.

FAMILY AND CONSUMER SCIENCES (FACS)

FACS I 7/8

Express your creative talents through skills learned in Family and Consumer Sciences I. While understanding nutrition and important healthy food choices, students will prepare foods from each component of the Daily Food Guide Pyramid. Cooperation, problem solving, and evaluation skills are enhanced during cooking lab experiences. Students will select a sewing project that will reflect their personal interest and ability. Hand and machine sewing will be explored during construction of the projects. Enhance your decision-making power by understanding consumer responsibilities. Finally, through the study of family and peer relationships students will be prepared for future personal experiences. Students are responsible for purchasing their own fabric and supplies for the sewing portion of this class.

FACS II 7/8 (Prerequisite Required: FACS I.)

This class integrates a variety of curricular areas such as math, science, health and artistic design through the use of projects and labs. Intermediate level sewing projects and food labs are chosen to further develop students' family and consumer knowledge. In addition to these practical living skills, students will be instructed in the care, guidance, understanding, and appreciation of children and their development. Finally, students will learn about the principles of design in housing. Students are responsible for purchasing their own fabric and supplies for the sewing portion of this class.

GENERAL ELECTIVES (cont'd)
(Semester Courses – Some classes may include 6th, 7th and 8th grade students)

PLTW (PROJECT LEAD THE WAY)

Semester Long Course:

DESIGN AND MODELING and AUTOMATION AND ROBOTICS 6/7/8

Design and Modeling (9 weeks/.5 semester): Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

Automation and Robotics (9 weeks/.5 semester) 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.

Semester Long Course:

MEDICAL DETECTIVES and SCIENCE OF TECHNOLOGY 6/7/8

Medical Detectives (9 weeks/.5 semester): Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a “crime scene.” They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

Science of Technology (9 weeks/.5 semester): Science impacts the technology of yesterday, today, and the future. Students 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.

