

**Porter-Gaud**

**Middle School**

**Course Guide**

**2017-2018**



## **MIDDLE SCHOOL COURSE REGISTRATION INFORMATION AND INSTRUCTIONS**

This guide is designed to give instructions for course registration for the 2017-2018 academic year and to provide an overview of the Middle School curriculum. The chart on page 2 shows the sequence of courses for each grade level followed by course descriptions for each department. The core curriculum at each grade level is the same for the majority of students. In addition to the core courses, students will meet special area classes throughout the year in one of the blocks. Middle School Students have one elective choice: MS Choir.

The teachers at each grade level serve as academic advisors for the students in that grade. Advisors will distribute a schedule card along with a copy of the Course Guide to each student. Each student is required to fill out the schedule card and return it with the appropriate signatures. Parents will have an opportunity to discuss their child's course selection with advisors during the Parent-Student-Advisor conferences on **Tuesday, April 4th**. The deadline for returning the schedule card to the advisor is **Thursday, April 6th**.

Courses required of all students have already been filled in. Students entering 5th and 6th grades will need to select their choice of a world language. Students entering grades 7 and 8 must continue the world language started in grade 6. Students electing to take Choir must check the appropriate space on the schedule card.

Students will receive a copy of their schedules in the end-of-summer mailing. In addition to courses, times, and teachers, the schedule will also include the advisor's name and the student's locker number.

### Upper School Course Credit:

Please note Algebra 1, Honors Algebra 1, Geometry, Honors Geometry, Spanish I, Latin I, French I, and Chinese I are Upper School credits. If these courses are taken in the 7th or 8th grades, they are reflected on a student's Upper School transcript.

## MIDDLE SCHOOL CURRICULUM BY GRADE LEVEL

Grade/Discipline	5 <sup>th</sup> Grade	6 <sup>th</sup> Grade	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
<b>ENGLISH</b>	Reading Writing	English 6	English 7	English 8
<b>MATH</b>	Math 5	Math 6 Honors Pre-Algebra	Pre-Algebra Honors Pre-Algebra Honors Algebra I	Intro to Algebra Algebra I Honors Algebra I Honors Geometry
<b>HISTORY</b>	Classical World History	American History 1	American History 2	World Cultures
<b>WORLD LANGUAGES</b>	Chinese French Latin Spanish	Chinese Studies French Studies Latin Studies Spanish Studies	Chinese 1A French 1A Latin 1A Spanish 1A	Chinese I French I Latin I Spanish I
<b>SCIENCE</b>	Science 5	Life Science	Earth Systems	Environmental/ Physical Science
<b>ART</b>	Art 5	Art 6	Art 7	Art 8
<b>COMPUTER SCIENCE</b>	Computer Science 5	Computer Science 6	Computer Science 7	Computer Science 8
<b>MUSIC</b>	Music 5	Music 6	Music 7	Music 8
<b>PHYSICAL EDUCATION</b>	PE 5	PE 6	PE 7 Girls PE 7 Boys	PE 8 Girls PE 8 Boys
<b>RELIGION</b>	Religion 5	Religion 6		World Religions
<b>ELECTIVES</b>	Choir	Choir	Choir	Choir

In 5<sup>th</sup> and 6<sup>th</sup> grades, students meet twice a week for Physical Education. Art, Music, Computer Science, and Religion meet on a quarterly rotation.

In 7<sup>th</sup> and 8<sup>th</sup> grades, Art, Music, Computer, and PE meet on a quarterly rotation

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# Course Descriptions

## English

Reading/Writing- Fifth grade reading is designed to give students the tools to choose, read, and comprehend literature independently. Our workshop model gives students the gift of choice, which helps motivate them intrinsically. Students are monitored and conversations arise out of authentic connections to the text that each child is reading or writing. The one-on-one time given during class allows the teacher to gently challenge and re-teach skills when necessary. This makes for an organic discussion of the skills taught during whole class mini-lessons. Students in fifth grade are exposed to a variety of genres and challenged to broaden their interests. Fifth grade writing follows the same structure as reading. Students are allowed the opportunity to write on a topic and genre of their choosing. Students are given the chance to explore writing in a new genre. Progress is monitored through one-on-one conferences in craft and conventions, along with more formal rubric-based composition assessments. Students are also given the opportunity to creatively share what they've read and written while practicing public speaking in a comfortable environment.

English 6 – Sixth grade English is designed to answer content with responses and analysis with action through reading of and structured response to texts, writing and presentation of compositions, speaking formally /informally and listening actively. The necessary knowledge base of grammar rules and vocabulary building are regular exercises to enhance overall language competencies, while thorough study of public speaking skills --as well as close listening skills-- are evaluated and assessed on a schedule of clearly-defined standards. The notion of the class as a cooperative and mutually supportive group is promoted in class evaluation of projects and presentations according to demonstrated, defined criteria, and performance of plays and poems, both published and student-written.

English 7- Seventh grade English is a study of literature that seeks to understand and trace character development as well as to identify literary themes, ultimately making connections between different texts. Students write both personal narratives and descriptive compositions, using their exposure to literature to help them to understand the tenets of good writing. This course also emphasizes vocabulary acquisition as well as comprehension of grammatical concepts that will help students to write with more advanced and varied sentence structure.

English 8 - Students read novels, plays, poetry, and short stories to continue to develop skills in analyzing literature. Eighth grade students build on their working knowledge of literary elements from 6th and 7th grade to understand the characteristics of each genre. Students use class discussion, annotations, and active reading strategies to engage in the course readings. They develop individual writing styles through the expository format, writing comparison, definition, persuasive, and other forms of essays. The course includes vocabulary study through completing practice exercises in workbooks and understanding context in literature. While students do not use a grammar workbook, their writing and revision skills dictate which areas need review and formal instruction.

## **History**

Classical World History (grade 5)- Classical World History is a course designed to introduce classical world civilizations and their rich histories to students in order to broaden exposure to global diversity. The course is structured to help students analyze world history through interactive, “experience-based” lessons that enhance empathy and understanding of various cultural traditions and historical developments. Students will build early foundational skills in analytical writing, and reading historical texts, including primary and secondary sources.

American History I (grade 6) - American History I is the first part of a two-year survey of North American history from 10,000 BCE to the present. Students begin with an investigation of nascent Paleo-Indian cultures at the end of the Earth's last Ice Age and end with an examination of Reconstruction after the U.S. Civil War. The course is designed to draw students into an interactive narrative of the people and events traversing this period in history, while building foundational critical reading and writing skills.

American History II (grade 7) - American History II is part two of a survey of North American history, spanning from Reconstruction through the 1980s. Students begin with a unit on American government and civics, and finish out the year examining the turbulence of the Cold War Era. Through interactive simulations and debate, students in this course will assume an active role in assessing the events that shaped the history of the United States, while building critical thinking and writing skills.

World Cultures (grade 8) – World Cultures is a course designed to expose students to the growing interconnectedness of the world and its cultural diversity. While continuing to develop research and analytical skills in reading and writing, this course is designed to heighten awareness of and develop an interest in cultures around the world, while broadening student empathy for differences. Knowledge of the current geographic, economic, political, and social landscapes of different world regions will allow students to better understand the issues that continue to shape the world today.

## **World Languages**

The World Language curriculum in the MS begins in the 5th grade with the choice of a year’s course in Chinese, French, Latin, or Spanish. After experiencing the foundational skills to learn any language in the 5th grade, students choose their language for the next three years’ more intensive study. In the 6th grade “studies” level of all languages, students continue to hone their speaking skills and learning about different cultures. Over the three years, time to learn new grammatical patterns, to develop writing and speaking skills, and to explore the culture in greater depth through classroom skits and projects will provide a solid foundation for Level II in grade 9. The Middle School program will be equivalent to a traditional Upper School Level 1 language course, and students will receive 1 high school credit at the completion of the 8th grade course.

World Language Grade 5 (Chinese, French, Latin, or Spanish) - The 5th grade language courses are a year-long study intended to introduce the students to the language and traditions of a particular region. The students will explore culture and customs, expand upon the oral approach to language from their Lower School studies, and learn techniques to prepare for a written component of language acquisition. Intended to be exploratory in nature, these courses, regardless of the particular language, lay a foundation for skills students will hone throughout the study of language at Porter-Gaud.

Chinese Studies (Grade 6) - In the Chinese studies course is a year-long course intended to introduce the students to the language and traditions of China. The students will explore Chinese culture and customs and make cultural comparisons with their own world. In addition, basic conversational phrases and essential grammar will be taught.

French Studies (Grade 6) - The French Studies course is a year-long course intended to introduce the students to the language and traditions of countries in the Francophone world. The students will explore the culture and customs of these areas and make cultural comparisons with their own world. In addition, basic conversational phrases and essential grammar will be taught.

Latin Studies (Grade 6) - The Latin Studies course is a year-long course intended to introduce the students to the language and traditions of ancient Rome. The students will explore its culture and customs and make cultural comparisons with their own world. In addition, the students will read and translate a basic introductory text focusing on the Caecili family of Pompeii.

Spanish Studies (Grade 6) - The Spanish Studies course is a year-long course intended to introduce the students to the language and traditions of countries in the Spanish-speaking world. The students will explore the culture and customs of these areas and make cultural comparisons with their own world. In addition, basic conversational phrases and essential grammar will be taught.

Chinese 1A (grade 7) - In Introduction to Chinese, students begin to build a basic vocabulary and to learn the grammatical structures needed to develop the major language skills of reading, writing, listening comprehension, and speaking on a variety of topics concerning daily activities. In addition, students are introduced to Chinese culture through appropriate authentic materials.

French 1A (grade 7) - In Introduction to French, students begin to build a basic vocabulary and to learn the grammatical structures needed to develop the major language skills of reading, writing, listening comprehension, and speaking on a variety of topics concerning daily activities. In addition, students are introduced to French cultures through graded readings, CDs, videos, and other appropriate authentic materials.

Latin 1A (grade 7) – Introduction to Latin marks the formal introduction to the Latin language, covering essential grammatical concepts and developing vocabulary skills. The course addresses all noun declensions, the primary function of each case, adjective-noun agreement, verb conjugations for all six tenses in the active voice, demonstrative adjectives, personal pronouns, and adverbs. Additionally, students begin to explore Roman mythology, Roman history through the mid-Republic, and key aspects of Roman culture through a project-based learning experience centered on the facts and artifacts discovered in the preserved cities of Herculaneum and Pompeii.

Spanish 1A (grade 7) - In Introduction to Spanish, students begin to build a basic vocabulary and to learn the grammatical structures needed to develop the major language skills of reading, writing, listening comprehension, and speaking on a variety of topics concerning daily activities. In addition, students are introduced to Hispanic cultures through graded readings, CDs, videos, and other appropriate authentic materials.

Chinese I (grade 8) - Chinese I is a continuation of introduction to Chinese. After an in-depth review of the material from the introductory course, students continue building their vocabulary on such topics as school life, shopping, travel and customs, and using more complex grammatical structures. Finally they further their knowledge of Chinese culture through projects and audiovisual media.

French I (grade 8) – French I is a continuation of Introduction to French. After an in-depth review of the material from the introductory course, students continue building their vocabulary on such topics as clothing, sports and fitness, leisure activities, and foods, and using more complex grammatical structures. Finally, they further their knowledge of French culture through projects and audio visual media.

Latin I (grade 8) – Latin I continues to build the fundamentals of the Latin language and seeks to expand students’ working vocabulary in Latin as well as enhance their vocabulary in English. The course introduces more advanced grammatical concepts, including passive voice, relative clauses, indefinite and interrogative pronouns, participles, and indirect statements. Students also continue to expand their knowledge of Roman mythology, culture and history by the completion of several mini-projects throughout the year.

Spanish I (grade 8) – Spanish I is a continuation of Introduction to Spanish. In this course, after an in-depth review of the material learned in the introductory course, students will continue building their vocabulary on such topics as clothing, the house, their daily routine, and leisure activities. They will also use more complex grammatical structures. Finally they will further their knowledge of Spanish culture through projects and audio visual media.

## **Mathematics**

### **Math Department Honors Admissions Criteria**

It is the goal of the Porter-Gaud mathematics department to provide every Porter-Gaud student with an opportunity to be successful in his/her study of mathematics while simultaneously being challenged to reach the highest level of expertise possible. A student’s placement in the correct course is extremely important.

Honors mathematics students are self-motivated, critical thinkers who enjoy exploration, problem solving, and learning mathematics.

Recommendations for placement in Honors math course are made by the math department as a whole, and are based on, but not limited to, the following criteria:

1. Overall grade in all prior math courses

Honors Pre-Algebra (grade 7) – 90 or better in Math 6

Honors Algebra I (grade 7 or 8) – 90 or better in Honors Pre-Algebra, 96 or better in Pre-Algebra

Honors Geometry (grade 8) – 90 or better in Honors Algebra I, 96 or better in Algebra I

2. Recommendations of current and previous math teachers

3. Midterm and Final exam grades in prior math courses

4. Strong work ethic

5. Standardized test scores (ERB and EOC scores)

PLEASE NOTE:

Some placements may require additional preparation/summer work by students to ensure that they are prepared to succeed in the course they seek to take.

Should a student's performance in his/her current math course change significantly in the second semester the math department reserves the right to amend their initial recommendation in order to best serve the students of Porter-Gaud.

Math 5 (grade 5) – Math 5 is structured as a review and expansion of all mathematical concepts taught in lower school. Topics of this course consist of the study of real numbers, operations and relations, rational numbers, prime numbers, least common multiples, greatest common factors, equations in problem solving, measurement, geometry, and graphical displays. This course aims to prepare students to enter Math 6 with confidence and strong arithmetic skills.

Math 6 (grade 6) - Math 6 is structured to help students deepen their understanding of mathematical concepts and to effectively communicate their mathematical reasoning. Topics in this course consist of number theory, data and statistics, basic algebra concepts, decimals, fractions, ratios, proportions, probability, measurement, geometry, and integers. The course will aim to ensure that all students have strong arithmetic and problem solving skills as they move into pre-algebra.

Honors Pre-Algebra (grade 6) – Honors Pre-Algebra is a course structured to develop the command of the language and operations of Algebra. The pace of the class and depth of study of some topics distinguish it from Pre-Algebra. Students will continue the study of topics necessary for successful completion of a foundational Algebra course. Topics covered include integers and expressions, variable equations, decimals, square roots, exponents, scientific notation, rational numbers and expressions, ratios, proportions, percent, graphing in the coordinate plane, polynomials, and factoring. To earn placement into this course students must take a placement test that will be scored by the mathematics department chair. The placement test, past grades in mathematics, and ERB scores in mathematics will be considered when deciding a student's placement.

Pre-Algebra (grade 7) - Pre-Algebra is a course structured to develop the command of the language and operations of Algebra. Students will continue the study of topics necessary for successful completion of a foundational Algebra course. Topics covered include integers and expressions, variable equations, decimals, square roots, exponents, scientific notation, rational numbers and expressions, ratios, proportions, percent, graphing in the coordinate plane, geometry, and factoring.

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Honors Algebra I (grade 7) – The purpose of this course in Algebra is to familiarize students with structures and methods of Algebra. The pace of the class and depth of study of some topics distinguish it from Algebra I. The syllabus includes a study of the number line, equation-solving, operations on polynomials, factoring polynomials, algebraic fractions, linear equations and systems, linear and quadratic functions, inequalities, irrational numbers, and graphing quadratic functions. Problem-solving is emphasized throughout this course.

Intro to Algebra I (grade 8) - The purpose of this introductory course is to familiarize students with structures and methods of Algebra. The syllabus includes a review of real numbers, algebraic expressions, solving equations and inequalities, ratios, proportions, and percents. Students will spend the second semester studying functions, specifically linear functions. The purpose of this course is to give students a strong foundation in the concepts needed for success in Algebra I and beyond.

Algebra I (grade 8) - The purpose of this course in Algebra is to familiarize students with structures and methods of Algebra. The syllabus includes a study of the number line, equation-solving, operations on polynomials, factoring polynomials, algebraic fractions, linear equations and systems, linear and quadratic functions, inequalities, and irrational numbers. Problem-solving is emphasized throughout this course.

Honors Algebra I (grade 8) – The purpose of this course in Algebra is to familiarize students with structures and methods of Algebra. The pace of the class and depth of study of some topics distinguish it from Algebra I. The syllabus includes a study of the number line, equation-solving, operations on polynomials, factoring polynomials, algebraic fractions, linear equations and systems, linear and quadratic functions, inequalities, irrational numbers, and graphing quadratic functions. Problem-solving is emphasized throughout this course.

Honors Geometry (grade 8) – This course in Euclidean Geometry focuses on reasoning and proof, parallel and perpendicular lines, triangles, quadrilaterals, polygons, circles, and solids. Students discover theorems dealing with congruence, similarity, right triangles, area, and volume for geometric figures. Coordinate geometry, algebra skills, and problem solving are reinforced throughout the year. Problems in Honors Geometry are abstract and challenging, and topics are covered at a faster pace than in Geometry.

## **Science**

Science 5 (grade 5) - 5th Grade science explores topics within the Life, Earth and Physical sciences. Investigations using the scientific method are woven into various units of study. Students also frequently practice creating models to represent key concepts. Students will acquire study skills and scientific habits of mind that prepare them to be successful in science classes. Particular focus is placed on the wonder of science and enjoyment of the subject. Major topics of study include matter and mixtures, sound energy, changes in landforms, oceans, relationships in ecosystems, force and motion, respiratory and cardiovascular body systems, and human-environment interactions.

Life Science (grade 6) – This course reinforces and expands upon Life Science concepts and skills learned in Grades 1-5, as well as introducing new ones. The primary focus in this course is on continuing to acquire scientific attitudes and habits of mind using the scientific method through investigative labs and a variety of technologies, which are enhanced by the use of an interactive text and rigorous classroom discussions. Areas of study include an initial brief review of scientific inquiry, and the metric system, as well as in-depth studies of cells, the microscopic world, and the structures, processes, and responses of all living things. The three primary units of study are; Cells and Heredity, Diversity of Life and Human Body Systems.

Earth Systems Science (grade 7) – Earth System Science focuses on developing an understanding of how the Earth functions as a system, where the lithosphere, hydrosphere, atmosphere and biosphere interact, work together and affect each other. Students will investigate Earth’s features, movement, environment, and history, while paying particular attention to the influence of the planet’s oceans. Through multiple labs and projects students will develop an understanding of the Scientific Method and gain experience in a broad range of topics integral to understanding this planet as a whole and the forces that influence it.

Environmental and Physical Science (grade 8) – Environmental and Physical Science is an introductory course that focuses on the use of chemistry and physics to gain a better understanding of science and technology. This understanding will aid the students in making informed decisions about the issues facing communities today, especially environmental issues. This course is designed to enable students to learn to collect and analyze data, create models, ask questions, debate ideas, and make decisions based on evidence.

## **Computer Science**

Computer Science 5 -This course is an introduction to the world of computer science. Students will explore a variety of topics including block-based coding, physical computing, 3D design and printing, introductory game design and introductory robotics. We will begin to use use longer and larger projects to help emphasize problem solving, creativity, and computational thinking.

Computer Science 6 - This course expands the skills introduced in 5th grade. Students will further explore a variety of topics including block and text coding, physical computing, more advanced 3D design and printing, and more advanced game design. Students will learn the basics of algorithmic thinking and apply that to a series of long-term projects.

Computer Science 7 - This course furthers the skills developed in 6th grade as students more deeply explore the world of problem solving and computer science. In this course, students learn to create digital design solutions using a variety of programming environments and languages. Students will explore 3D design, 2D game creation, robotics, electronics, and physical computing. Logical and algorithmic thinking and problem solving will be used in what is primarily a project-based course.

Computer Science 8 –Students will further their exploration of computer science and begin to prepare them for what lies ahead in the Upper School . Students will expand their problem solving, logical and analytical thinking, group collaboration, and digital creation skills by delving deeper into the world of 3D modeling and game creation. They will use text-based programming through Minecraft Python and music creation programming. This is primarily a project-based class.

## **Fine Arts**

Art 5- Fifth grade students will review the Elements of Art (Line, Shape, Color, Texture, Value, and Form) and will focus on the Principles of Design (Pattern, Balance, Space, Variety, Repetition, Proportion, Movement, and Rhythm). Students will develop a further understanding of how to incorporate these elements and principles into a work of art to create better composition and design. Students will refine their motor skills while they experiment with various types of media and materials. Art appreciation and art history are integrated into lesson plans.

Art 6 – Sixth grade art students will continue to explore the elements and principles of art and design, as well as lessons in art appreciation and art history. Students will use many different mediums and techniques in creating drawings and paintings in both 2-D and 3 -D artwork. The students will also learn printmaking and clay hand building techniques.

Art 7 – Seventh grade art students continue to explore the elements and principles of art and design that they began in the 6th grade through hands-on project work and lessons in art history and art appreciation. Students continue to improve their artistic skills by using different mediums in their drawing and painting of 2-D and 3-D artwork. Hand building techniques are explored in clay.

Art 8- Eighth grade students will further their exploration of the elements and principles of art and design by completing art projects where they will use different mediums and techniques in their drawing and painting of 2-D and 3-D artwork. The class project will begin with a lesson in art history and art appreciation. They will also complete a hand built clay bowl or dish to reinforce their hand building techniques.

Music 5- Music 5 explores the fundamentals of music, including rhythm, melody, and harmony. Students will play instruments, sing, and use their iPads to explore music from varied time periods and places. They will focus especially on rhythm and drumming, as well as music from around the world. Students will also explore basic improvisational and compositional techniques.

Music 6 – Music 6 is an exploratory look into many different musical styles and genres. Students start by exploring the fundamentals of music- rhythm, melody, and harmony. They focus extensively on pop music, jazz, and movie music. Throughout the course, students perform, improvise, and compose using instruments, their voices, and GarageBand software.

Music 7 – Students will explore a wide variety of musical styles and genres as they continue their study of music. In this course, special emphasis is placed on keyboarding, reading the music staff, and composition. They explore further into music’s fundamental aspects of rhythm, harmony, and melody, and explore instrument families and musical theatre. They explore how music affects their lives and the lives of others, and delve into the emotional and storytelling aspects of music.

Music 8 – Students continue to explore the fundamentals of rhythm, melody, and harmony. They learn the basics of guitar, both through playing chords and playing notes. They also explore folk music from around the world, classical music, and popular music styles. The class culminates with a pop song composition and recording project using guitar and GarageBand.

MS Choir - The Middle School Chorus is a year-long graded ensemble. The chorus performs at all major concerts given by the Performing Arts Department. The chorus is an elective open to any student who has a love of singing. Students learn the discipline and skill of vocal performance within a group. The chorus studies basic techniques of singing while preparing numerous concert selections of various musical styles and periods. Students are required to participate in all dress rehearsals and concerts. MS Choir will meet during Community Choir time one day per week and with sectional meetings on Tuesdays (boys) and Thursdays (girls) from 3:15-4:00. Combined rehearsals may be required prior to performances. Uniform concert dress is required.

## **Physical Education**

PE 5, 6, 7, and 8 – Physical Education at the Middle School level is based on physical fitness with a basic introduction to leadership skills and teamwork. Students will learn through team placement the importance of working together for a common goal. The Physical Education Department strives to promote students' self-confidence by cultivating a positive environment through sports activities. Grades are determined by objective methods based on active participation, attitude, and overall improvement.

## **Religion**

Religion 5 and Religion 6: In continuation of many of the virtues studied in the Lower School, Religion 5 and Religion 6 will use C.S. Lewis' Narnia novels as discussion points. These novels offer students of different backgrounds a common ethical framework, aligned with the mission of Porter-Gaud School. The curriculum engages students while they are in a crucial formative period; they learn to understand and acquire the virtues underpinning good character through their engagement with the *Narnian Virtues Character Education* curriculum.