

# Middle School Electives 2024-2025



Developmental Research School  
at the University of Florida

## 6<sup>th</sup> and 7<sup>th</sup> grade Elective Courses

\*not all are available at the same time or in all years.

**Two- Dimensional Studio Art:** Students investigate a wide range of media and techniques, from both historical and contemporary perspectives, as they engage in the art-making processes of creating two dimensional works, which may include drawing, painting, printmaking, and/or collage. Student artists reflect on their own artwork and that of others through critical analysis to achieve artistic goals related to craftsmanship, technique, and application of 21st-century skills. Opportunities are provided for creative decision-making in the context of the structural elements of art and the organizational principles of design. This course incorporates hands-on activities and consumption of art materials.

**Band:** Students with little or no instrumental experience develop foundational instrumental technique, foundational music literacy, and aesthetic musical awareness through rehearsal, performance, and study of high-quality band literature. Instrumentalists work on the fundamentals of music notation, sound production, instrument care and maintenance, and personal and group rehearsal strategies. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. This course may also require students to obtain a musical instrument (e.g., borrow, rent, purchase) from an outside source.

**Biomedical Science (Bio Med):** Students will engage in a project-based curriculum which includes investigations of human body systems. This introductory middle grades elective is designed to introduce students to asking and exploring questions related to the systems and functions of the body, medicine, and human physiology.

**Computer Science (CS):** Students will build upon their technology skills by delving into emerging technologies. The computer science components will focus on building a foundation of understanding in computational thinking and programming languages. This course will provide students with possible pathways and career options, which they can enhance at the high school level.

**Digital Design:** Students will have the opportunity to build basic skills in graphic design including an introduction to adobe creative cloud tools. Students will engage in a project based learning (PBL) course where they will collaborate with both students and teachers to complete meaningful projects and tackle design challenges through critical thinking and problem solving. Additionally, students will utilize a design process and leverage digital tools to create, capture, and communicate their learning discoveries.

**Engineering:** Design and Modeling (DM) provides students opportunities to apply the design process to creatively solve problems. Throughout each unit of study students are introduced to the unit problem in the first activity and are asked to make connections to the problem throughout the lessons in the unit. Students learn and utilize methods for communicating design ideas through sketches, solid models, and mathematical models. Students will understand how models can be simulated to represent an authentic situation and generate data for further

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analysis and observations. Students work in teams to identify design requirements, research the topic, and engage stakeholders. Some design solutions include having teams design a toy or game for a child with cerebral palsy, fabricate and test it, and make necessary modifications to optimize the design solution.

**Lego League (Lego):** FIRST® LEGO® League introduces science, technology, engineering, and math (STEM) to middle school students, through exciting hands-on learning. Participants gain real-world problem-solving experience through a guided, global robotics program. Students will experiment and grow their critical thinking, coding, and design skills through hands-on STEM learning and robotics. The goal of the class will be to compete as a team in a local FIRST® LEGO® League competition.

**Modern Music:** students will have experiences with all traditional rock band instruments like guitar, keyboard, drum set, and vocals. They will play in small groups where they have the opportunity to learn the fundamentals on all instruments, play music by ear, write original songs, perform popular cover tunes, mix and record live music, and learn how to use digital audio workstations and MIDI sequencers.

**Physical Education (PE):** This course is designed for 6th and 7th grade students. The purpose of this course is to provide a foundation of knowledge, skills, and values necessary for the development of a physically active lifestyle. The course content provides exposure to a variety of movement opportunities and experiences which includes, but is not limited to, fitness activities, educational gymnastics and dance, and team sports. The integration of fitness concepts throughout the content is critical to student success in this course and in the development of a healthy and physically active lifestyle.

**Vocal Ensemble: (Incorrectly labeled as PA on the form)** In this course, students will focus on vocal techniques, and basic choreography will be included. They will experience music in many genres. Skills learned in this class will transfer readily to performances in vocal concerts, musicals, and ultimately, the Vocal and Dramatic Arts pathway at PK Yonge.

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## 8<sup>th</sup> Grade Elective Courses

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**African American History:** in development

**Two- Dimensional Studio Art:** Students investigate a wide range of media and techniques, from both historical and contemporary perspectives, as they engage in the art-making processes of creating two dimensional works, which may include drawing, painting, printmaking, and/or collage. Student artists reflect on their own artwork and that of others through critical analysis to achieve artistic goals related to craftsmanship, technique, and application of 21st-century skills. Opportunities are provided for creative decision-making in the context of the structural elements of art and the organizational principles of design. This course incorporates hands-on activities and consumption of art materials.

**Biomedical Science (Bio Med):** Students will engage in a project-based curriculum which includes investigations of human body systems. This introductory middle grades elective is designed to introduce students to asking and exploring questions related to the systems and functions of the body, medicine, and human physiology.

**Computer Science:** Students build upon their previously developed technology skills by delving into emerging technologies. The computer science components will focus on building a foundation of understanding in computational thinking and programming languages. This course provides students with possible pathways and career options, which they can enhance at the High School level.

**Digital Design:** Students will have the opportunity to build basic skills in graphic design including exposé and an introduction to adobe creative cloud tools. Students will engage in a project based learning (PBL) course where they will collaborate with both students and teachers to complete meaningful projects and tackle design challenges through critical thinking and problem solving. Additionally, students will utilize a design process and leverage digital tools to create, capture, and communicate their learning discoveries.

**Engineering:** Students experience units of study focused on collaborative problem-solving to generate solutions to real-world questions. Students choosing engineering will engage in hands-on lab experiences involving the application of science learning and technical skills. Tasks and projects in this course are designed around unique questions and design dilemmas.

**Intermediate Band:** Students with previous band experience build on instrumental technique, music literacy, and aesthetic response through rehearsal, performance, and study of a variety of high quality band literature. Instrumentalists expand their knowledge of music notation, music theory, sound production, and personal and group rehearsal strategies. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. This course may also require students to obtain a musical instrument (e.g., borrow, rent, purchase) from an outside source.

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**Introduction to STEM:** "Introduction to STEM Exploration" is an engaging middle school elective designed to ignite curiosity and foster a passion for science, technology, engineering, and mathematics (STEM). Students will embark on a hands-on journey through various disciplines, including robotics, coding, physics, and biology, as they collaborate on exciting projects and experiments. Through interactive activities and real-world applications, students will develop critical thinking, problem-solving, and teamwork skills essential for success in today's rapidly evolving technological landscape. This course aims to inspire the next generation of innovators and equip students with a strong foundation in STEM fields.

**Marching Band:** Students with previous band experience build on instrumental technique, music literacy, and aesthetic response through rehearsal, performance, and study of a variety of high quality band literature. Instrumentalists expand their knowledge of music notation, music theory, sound production, and personal and group rehearsal strategies. Public performances may serve as a culmination of specific instructional goals. This course requires students to participate in extra rehearsals and performances beyond the school day. Extra uniform and activity fees may apply.

**Vocal and Dramatic Arts: (Incorrectly labeled as PA on the form)** This course will focus on building foundational skills in singing and acting that will prepare students for the high school Vocal and Dramatic Arts pathway. A variety of musical styles will be introduced. In addition to singing techniques, students will receive basic instruction in using the voice appropriately for acting, as well as basic dance and choreography skills, music reading, music technology, and music careers. This study will transfer readily to performances in vocal concerts, musicals, other straight plays, and ultimately, the high school Vocal and Dramatic Arts pathway at PK Yonge.