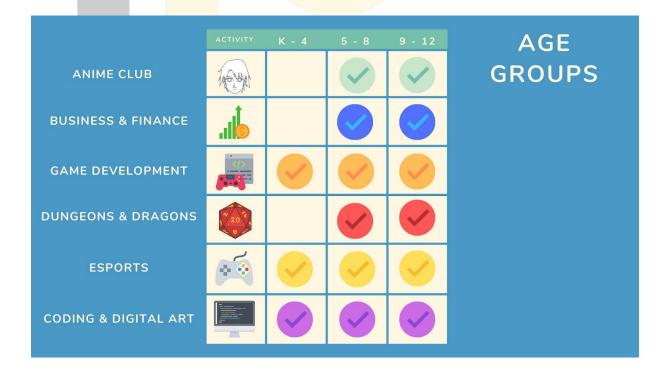# Course Descriptions

2021 - 2022

Concorde Education is an educational company focused on STEAM education. We provide curriculum development and design, professional development, and direct instruction to public and private schools, camps, and individuals nationwide.

ACTIVITY		K - 4	5 - 8	9 - 12
ANIME CLUB			✓	✓
BUSINESS & FINANCE			✓	✓
GAME DEVELOPMENT		✓	✓	✓
DUNGEONS & DRAGONS			✓	✓
ESPORTS		✓	✓	✓
CODING & DIGITAL ART		✓	✓	✓

AGE GROUPS

CODING & PROGRAMMING

Robotics Coding
Our robotics coding program is designed to introduce students to the concepts of coding using a variety of robots including drone, Ozobots, Legos, and Spheros. Students will use languages beginning with Blockly, a user-friendly and very visual language before moving on to more complicated, script-based languages like Python.

Web Development Coding
Our instructors cover a range of web development related languages such as HTML, CSS, JavaScript, as well as other high-level languages such as Python, Swift, and SQL. For younger students, more age-appropriate languages such as Blockly and Scratch can be used to build coding competencies.

Video Game Development
Learn the frontend and backend of mobile game app development! Students create games in Blockly with MIT App Inventor and gain an understanding of game design. Our instructors guide students from simple games like Mole Mash, Galaga, and build up to more challenging and original games. This course is perfect for someone looking to build upon or begin their journey into computer programming.

3D Printing and Design
We believe 3D Printing and Design is a gateway to our inner creativity. This curriculum was designed by our experienced and certified teachers to integrate Project-Based Learning into every lesson. In this course, students will begin by learning foundational skills such as aligning, scaling, grouping, rotating, and flipping shapes. Students will use this knowledge to design and print simple, everyday objects such as keychains, jewelry, holiday objects, and more. As they learn more advanced concepts such as extruding, meshing, cross sectioning, shelling, and slicing, they will design more complex objects like smartphone covers and tablet stands. Students will also have an option to design 3D objects using simple block-coding and learn concepts such as loops, variables, and advanced algorithms.

Basic of Java Development
Software Engineers are absolutely critical in keeping America running. Every part of our daily lives depends on software, even the ice cream store that takes a credit card for payment. One of the programming languages that makes this possible is Java. Did you know that Netflix is built with Java? While this course is based on Java, many of the

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concepts learned are applicable to other programming languages. A career in Software Engineer will lead to a salary of $125,000 or more, and job opportunities are plentiful.

In this course students will learn:
- Introduction to Java, how it is used, and common tools to work with it.
- What are some of the hottest Java related technologies employers are looking for?
- Basic programming concepts and terminology such as variables, loops, objects, and functions.
- Overview of how to store and retrieve data from a database.
- Creating your first Java program and running it.

Introduction to DevOps and Cloud Platforms

The practice of DevOps is currently one of the most in demand, and well-paying, jobs within the IT Industry. A person working in this practice is called a Delivery Engineer and it offers a career path that leads to a salary of $125,000 a year, or more. A Delivery Engineers works with software development teams to automate the deployment of the software products and services that we use every day. For example, deploying updates for a mobile app to the Apple App Store or Google Play Store with just a few clicks. Amazon releases about 23,000 software updates each day, this would be completely impossible without Delivery Engineers and the practice of DevOps.

In this course, students will learn:
- What is a Delivery Engineer and why are they so important?
- High level overview of how software and mobile apps are built, tested, and deployed into production environments.
- What kind of skills does a Delivery Engineer need and the common tools they use to do the job.
- What is "the cloud" and how does it work? Why it is so critical to America's IT infrastructure? Did you know that, in addition to its store, Amazon is one of the biggest 3 cloud providers? Netflix runs on the Amazon cloud platform.
- What are some of the common tools that used to manage resources in the cloud? Why are they important.
- What techniques does Amazon, Facebook, Instagram, and other social media platforms use to deploy software to end users without interruption of services?

DIGITAL ARTS

Digital Photography

Photography has become such a large part of our culture, that we sometimes forget that it's an art form. In this class you will learn a more meaningful approach to taking pictures, by learning the basics of photography. We will discuss framing and photographic composition as well as basic lighting and presentation. Be ready to share your work as we engage in photographic critiques, as the only way we grow as artists is

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to get feedback from our peers. Whether you're working with your phone's camera or a DSLR, there will be something to learn for all aspiring photographers!

Video Editing

Video Editing takes so many forms. Perhaps you're trying to tell a story, or you're putting together a highlight reel of gameplay footage - Regardless of what the end product of your video will be, editing helps play a huge role in how people engage with your video! Whether you're using an app on your phone or you have a more substantial program like Adobe Premiere, you'll learn some of the fundamentals of video editing and how to create a really cool and engaging video!

Digital Animation

Whether you're a beginner or you've experimented with animation in the past, this class will teach you some of the fundamentals you'll need to create an animated short! In this class we will discuss frame rate, keyframes, tweeting, easing, character/ puppet design, and basic blocking and movement. Here's the best part - anyone can animate with virtually anything! Whether you're working with Adobe software, or a smartphone and objects from around the house or classroom, you'll finish the course having brought something to life!

Social Media

Social Media has quickly taken over the globe! How much time do you spend scrolling through Instagram and watching TikTok videos? It is time not only to consume but become a creator yourself. You already have everything you need in your pocket! All it takes are the tools found on your smartphone and the willingness to let your imagination run wild. We will begin by discussing how we consume media and examine our favorite creators and influencers. You will have the opportunity to create your version of current and past TikTok trends and even dabble in branded content. By the end of the course, you will learn how to develop, write, shoot, edit and engage with followers on various social media platforms. It is time to post up a storm!

Idea Development

Love watching movies and TV shows? Do you have an idea that would be great for the screen? This course starts at the beginning and breaks down what makes a good idea. You will learn creative tools that can be used to develop your unique vision, including storyboarding and writing loglines. Classes provide an opportunity to create in-depth characters and build a world for them to live in. By the end of this course, you will film

and edit together a short pitch video about your idea!

ESPORTS

Want to take your gaming to the next level? Imagine winning competitions for your school, building your skills, pursuing scholarships, and future opportunities in the world of esports. We can help you realize those dreams. For many, the idea of being a professional gamer, streamer, or content creator might seem out of reach, but you must start with small steps. Our course is designed to teach the intricacies of in-game strategy, broadcasting and design to help you make a name for yourself. Whether it's League of Legends, Rocket League, Super Smash Bros, NBA 2K, or a myriad of other games, our coaches can help you turn your hobbies into marketable skills for the future. Join us on the cutting edge and let the games begin!

Our esports team package includes features such as team planning / development, assistance in scheduling scrimmages or matches, and instruction geared toward cultivating a social presence and branding (such as designing team / individual logos).

Pokemon

Competitive Pokemon is currently played on the Nintendo Switch platform for bothPokemon Sword & Shield. "Pokemon VGC" (Video Gaming Championships) is the format used to put trainers in a 6v6 doubles match in which players bring 6 legal Pokemon into battle, but are only allowed to choose 4 in each match. During team preview, players are able to see their opponents' team (but not items or abilities) andmust predict which pokemon would best fit the current match. The first player to KO4 pokemon is deemed the winner. All competitive VGC matches in tournaments can either be Best of 1 or Best of 3.

The first step to enter competitive pokemon battling is to build a team! This is often done on the popular website called Pokemon Showdown (https://pokemonshowdown.com/). On this website, players can choose which Pokemon they want and can build them accordingly based on playstyle and the current meta. Team building involves IV/EV calculations, choosing appropriate abilities and move set to best fit the player and playstyle.

Once the team is finally constructed, players can then test them in simulated practice battles against others on the website. If the player is happy with the results and the

team, he/she can then create/breed the team on the actual Nintendo Switch platform.From here, the player can further test the team on the Casual Ladder or jump straightinto Ranked Ladder. Tiers in Ranked Ladder include Pokeball Tier (Rank 1-6), Great Ball Tier (Rank 7-9), Ultra Ball Tier (Rank 10), and finally Masterball Tier. Once a player reaches Masterball Tier, they must then climb the ranks amongst the best in the world, and fromhere on, will be ranked by a number instead of a label (ex: Rank10,092, or Rank 89 in the world). Team Reviews and Replays of matches are also done to further improve the trainer's choices and decisions made during battle, as well as revamping the team if needed. Replays can be analyzed on Pokemon Showdown website or can be analyzed through actual match recordings from the Nintendo Switch if a game capture card is used.

There is a 6v6 singles format, but this is not VGC.

CUSTOM CLASSES

We can build and staff any number of individualized and specialized curricula based onyour students' needs or interests. Custom classes include curriculum design, staffing bya qualified and background checked instructor, and typically include a culminating project or performance.

Journalism & Broadcasting
Study the basic principles of modern digital journalism and broadcasting and its importance in today's society. Learn how to select a topic, research, investigate, and report your story. Students will learn how to write engaging articles, create digital content, and share their works on social media, school newsletters, and podcasts. Thiscourse can be customized to cover athletics, esports, or other school events.

Business & Finance
A course designed to introduce students to the world of business and finance. Students will learn about a variety of topics including entrepreneurship, budgeting, investments, and the stock market.

Household Science
A science course designed for elementary and middle school students. Students will investigate a variety of science topics and fields by conducting simple and safe science experiments using household items and ingredients. The content of these courses is adjusted based on the age and area of interest of the students and can focus on topics such as:

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- Food science focusing on chemistry (thermodynamics and chemical changes of food in various cooking methods) and biology (dissectionsof common fruits and vegetables, nutrition, reading food labels) as well as math to convert cooking measurements
- Science "Magic" tricks with static electricity, magnets, sleight of hand,optical illusions, and "tricking" the brain
- Density experiments (multiple household objects can be used like various liquids, cans of sodas or raw and hardboiled eggs)

Health and Medicine

Being healthy and informed about medicine are key components to a high standard of living. Students will explore the interplay among various human organ systems, developan understanding of key disease processes, and study how medications holistically affecta multitude of ailments. Through research and discussion, students will better understand the nature of any medical profession as well as ways to become healthier individuals.

Anime Club

Following the style of a literature analysis club, our anime club students compare the stories and styles of various anime before designing characters and stories of their own. Club meetings include screenings and discussions.

Dungeons & Dragons

Our Dungeon Masters provide students with a customized fantasy campaign drawing from Dungeons & Dragons lore. Students will design their characters, develop their backstory, and interact with their fellow group members as they engage in problem solving, storytelling, and the use of critical thinking skills to overcome challenges.

Drone Piloting (Part 107 Drone Piloting Certification Exam Prep)

So, you want to learn how to fly a drone? Did you know that physically flying the drone isonly half of the job? Do you know you need an FAA Drone Pilot Certificate to legally fly a drone for commercial purposes (as a job)?

Our Part 107 Drone Piloting course provides the required knowledge to pass the Part 107test to obtain the Drone Pilot Certificate. A comprehensive curriculum developed by professionals will cover not only the required FAA knowledge but will provide firsthand experience to learn basic and advanced aeronautical concepts necessary to become a Professional Drone Pilot.

ACADEMIC SERVICES

Concorde Education offers a near limitless variety of academic support and enrichment options for small group or 1:1 instruction.

Tutoring
Our academic tutors cover all academic subjects and age groups from elementary through college age students. Individual programs can be tailored toprovide support and/or enrichment for students of all ability and performance levels.

Test Prep
Our test prep tutors provide the skills and knowledge necessary to boost scores and performance on all state or national standardized tests and entrance exams, including but not limited to the SAT, SAT II, ACT, SHSAT, and Regents examinations.

A Note About Our Accreditation

STEM.org Accredited™ Educational Experience

STEM.org™ maintains good taste and exercises strict editorial judgment as to programs that are eligible for STEM.org's endorsement to its constituents and the STEM community at-large. STEM.org bestows its STEM.org Accredited™ Educational Experience trustmark on those programs that have been evaluated by a STEM.org Elite Facilitator™ or acting Executive Director.

When parents, educators, grantors et al. observe the STEM.org Accredited™ Experience seal, they know programs will:

- Integrate seamlessly into STEM-friendly homes and communities
- Align to Science, Technology, Engineering, and/or Math standards
- Support the development of student's 21st Century Skills
- Engage students through hands-on learning and collaboration
- Ensure a secure, third-party review and evaluation process

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THIS CERTIFICATE IS PRESENTED TO

Concorde Education

DATE OF COMPLETION

May 19, 2021

STEM ID

#32652111

A. B. Raupp

Founder / Executive Director

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SECURED ✔