

# Courses Introduction

## JR. ADVENTURES | Ages 7-9



### GAME DESIGN

#### Jr. Adventures In Minecraft Game Design

| Price: \$1545 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 12-16

Campers learn what it's like to be a real game designer as they work in teams to create their own stories, levels, and games within Minecraft.

**What Students Learn:** How to use Minecraft as a game engine, Command Blocks, Critical thinking, troubleshooting, and teamwork

**What Students Create:** Minecraft mini-games, Environments, terrain and structures, rules, narrative and mechanics

#### Jr. Adventures In Gaming Coding

| Price: \$1545 tuition + \$49 Facility | Date: Aug 5-9 / Aug 19-23

Discover how to create video games and character animations while learning the basics of computer programming using Scratch.Jr.

**What Students Learn:** How to create character animations and simple games, Foundational programming concepts and vocabulary (Sequences, conditions, Loops, Algorithms...), the purpose of a program and programmers

**What Students Create:** Interactive Story Apps, Asteroid Evasion Game, Crossover Road and Geometry Dash Games, Dodgeball and Geometry Dash Games



### ROBOTICS + ENGINEERING

#### Jr. Adventures in LEGO Robotics

| Price: \$1545 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 12-16 / Aug 19-23

Students will build a motorized Milo robot with motion and tilt sensors – Milo's application enables students to use powerful digital tools to carry out investigations and build and program.

**What Students Learn:** Basic engineering concepts, the many applications and designs of robots in our world, Fundamental programming concepts such as flow, sensor inputs and motor outputs.

**What Students Create:** Nine different robots, each one demonstrating a fundamental concept related to either simple machines or block-based programming.



### FILM + PHOTOGRAPHY

#### Jr. Adventures In Acting Filmmaking

| Price: \$1545 tuition + \$49 Facility | Date: Aug 5-9

Bring your story to life as you learn how to shoot and edit movies and express yourself through acting while exploring different filmmaking techniques.

**What Students Learn:** The 3 stages of film production, Storytelling techniques, On-camera acting techniques, Camera/pad shooting techniques, Editing in iMovie.

**What Students Create:** Silent Film, Super Hero Film, Fairy Tale Film, Fable Story.

## ADVENTURES | Ages 9-12



### 3D MODELING + DESIGN

#### Adventures In 3D Printing & Modeling

| Price: \$1830 tuition + \$49 Facility | Date: Aug 5-9

Students use cutting-edge 3D-printing technology to produce, evaluate and reiterate models and design creations.

**What Students Learn:** How 3D printers are changing the world, how to download pre-made 3D models, how to make a 3D, The design and engineering process, the thinking behind the industrial design and common consumer goods.

**What Students Create:** Printed 3D models, A final Project designed from the ground up that gets printed, A variety of 3D Models inside TinkerCAD.

#### Made by Girls: Adventures in Wearable Tech & Fashion

| Price: \$1755 tuition + \$49 Facility | Date: Aug 19-23

Learn the engineering design process using 3D modeling software to create your very own virtual clothing and digital patterns.

**What Students Learn:** The hardware and software tools required to create works of wearable technology, Series and parallel Circuits, Pattern Design using Adobe Illustrator.

**What Students Create:** 4 e-textile projects, 3 Arduino Programs, Patterns for accessory design, A customized runway-ready project.



### FILM + PHOTOGRAPHY

#### Adventures In Animation

| Price: \$1555 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 19-23

Create drawings and bring them to life using production techniques such as timelines and keyframes in Toon Boom Harmony.

**What Students Learn:** Basic animation and fundamentals of storytelling, discover how to create "claymation and humanimation, develop basic cartoon-drawing skills.

**What Students Create:** Digital illustrations and simple drawings, storyboard and project plans, 2D animated short films, A stop-motion animated film, A final animation reel.

#### Adventures In Filmmaking

| Price: \$1675 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 12-16

Discover how Hollywood shoots and edits movies while mastering filmmaking and special effects techniques.

**What Students Learn:** The movie making process start to finish, how to use a camera to tell stories, how to edit with adobe premiere, how to work on a team.

**What Students Create:** 2 short films, Commercial or PSA with stock footage.



### MUSIC PRODUCTION

#### Adventures In Electronic Music

| Price: \$1495 tuition + \$49 Facility | Date: Aug 12-16

Get into the rhythm of Electronic Music Production, learning the basics of music, and how to use professional music software!

**What Students Learn:** The basic elements of music, how to use professional music recording software, how to create custom sounds, how to record their own musical ideas.

**What Students Create:** Songs inspired by popular video games and funny internet games, A professional sounding mix of their favorite song from the class.



### ROBOTICS + ENGINEERING

#### Makers Workshop with Take-Home Electronics Kit

| Price: \$1695 tuition + \$49 Facility | Date: Aug 5-9 / Aug 19-23

Learn how to program electronics using Arduino, an electrical engineering prototyping platform that teaches people about electronics, and how electronic circuits can work.

**What Students Learn:** Programming in Microsoft MakeCode, Coding concepts, digital and analog input and output, Connecting external sensors and circuitry.

**What Students Create:** Fortune Teller, Grand Prix and Treasure hunt videos games, Bluetooth Rock-Paper Scissor Game, Music Box, Electronic Musical Instrument.

#### Adventures In LEGO Robotics & Programming

| Price: \$1675 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 12-16

Learn to design, build and program awe-inspiring robots using LEGO's most advanced and newest robotics technology – the powerful MINDSTORMS EV3.

**What Students Learn:** Engineering design process, how to follow building guides, how to program, how to analyze data, how to problem-solve, how to innovate and build a new Lego Robot

**What Students Create:** A portfolio of LEGO designs on LEGO Digital Designer, programs using the EV3 software, One robot than can complete a given challenge, Different building and programming approaches



### GAME DESIGN

#### Adventures in Minecraft Game Design

| Price: \$1655 tuition + \$49 Facility | Date: Jul 29-Aug 2 / Aug 19-23

As you build your virtual world, you also explore the different roles required to develop a video game including: programmer, game designer, architect, and artist.

**What Students Learn:** The roles of a Game Design team, Image editing, Game mechanics and narrative, Project management.

**What Students Create:** Resource packs custom textures, Maps and structures to support a game, A game design document, A playable adventure map.

#### Adventures in Roblox Game Development

| Price: \$1605 tuition + \$49 Facility | Date: Aug 19-23

Become a Roblox entrepreneur! Learn how to use Roblox Studio to create your own levels, environments, and worlds.

**What Students Learn:** The basic of good game design, how to manipulate objects in Roblox, Basics of lighting, color and UI, Collaboration and project management.

**What Students Create:** A single player platforming game, A team based group project game.

#### Made by Girls: Adventures in Game Design

| Price: \$1495 tuition + \$49 Facility | Date: Jul 29-Aug 2

Discover the immersive world of game development and learn key game design principles including game theory, character creation, digital storytelling, and publishing.

**What Students Learn:** How to create game elements, the basics of how to use GameSalad and Adobe Photoshop, Learn foundational game design principles, Explore the Design Thinking process, Build various mobile games.

**What Students Create:** Sprite-based 2D platforming games, original and playable 2D puzzle games, Backgrounds and characters, several Coding Scripts.



### CODING + ARTIFICIAL INTELLIGENCE

#### Adventures in Artificial Intelligence

| Price: \$1645 tuition + \$49 Facility | Date: Aug 5-9

Students will create their own artificial intelligence like Chatbots, Natural Language processing and Recommendation systems through Google Assistant, Google Home and block-based JSON.

**What Students Learn:** Artificial intelligence and Machine Learning uses, Fundamentals of model training, Chatbot construction and basic programming.

**What Students Create:** A functional chatbot, Machine Learning models for text and image recognition, Games and animations.

#### Adventures in Game Coding

| Price: \$1645 tuition + \$49 Facility | Date: Aug 12-16

Get introduced to coding to understand concepts such as functions, variables, strings, and objects to create video games & animations. Create your own custom game!

**What Students Learn:** Block-based programming, Game basics and mechanics, Game physics, Project management.

**What Students Create:** Custom games, offline game prototypes, Game assets and simple animations.

#### Adventures in App Development

| Price: \$1655 tuition + \$49 Facility | Date: Aug 5-9

Students will leave with an understanding of programming and a functional app that can be published to an iPhone, iPad and Android to be shown to friends and family back home.

**What Students Learn:** Programming Fundamentals, Variables & Loops, Conditional Statements Algorithms, UI Design how to make app.

**What Students Create:** Several basic apps, A chatbot app, A whack-a-mole app, A social media app, A self-designed app.

#### Adventures in Java Programming with Minecraft

| Price: \$1655 tuition + \$49 Facility | Date: Aug 5-9

Work with Minecraft's Java-based source code to create new types of blocks, ores, custom armor and items for the game.

**What Students Learn:** Basic programming concepts with Java, project management and scoping, the game design process and playtesting, Events, iteration and logic.

**What Students Create:** Server-side, event-based mods for Minecraft, A game of Adventure with a narrative, Balanced additions to an existing game.