

ACADECODERS 2019

MULTIPLE STREAMS FOR YOUNG CODERS AND GAME DEVELOPERS AGES 8 AND UP

Coding with Python – Acadecoders campers will learn a broad variety of concepts in this stream ranging from python basics, video game development using python as well as extending into advanced topics in AI and software development. Learning the basics of a language is a great start to becoming a coding star and by using Python, a very easy to read programming language with a wide application in the real world.

Foundations of Web Development - AcadeCoders campers will learn about Full Stack web development which is the entire package to designing and building a full-scale website. It is divided into two disciplines that make the practice of web development whole.

The first discipline is front-end development, which is the interaction between the user and the site itself. This is built with **HTML** as the skeleton of the site, **CSS** to provide the aesthetic features, and **JavaScript** for interactions and animations.

The second discipline is back end development, which takes a site from a static page to a dynamic application. This is built with a variety of tools, and AcadeCoders will be following the popular **M.E.A.N. stack**. This stack contains **(M)ongoDB** for handling databases **(E)xpress.js** for building the framework **(A)ngular.js** for providing a structural front-end framework for dynamic web apps, and **(N)ode.js**. Node.js allows the creation of Web servers and networking tools using JavaScript.

With the combination of these two disciplines; AcadeCoders will be able to build a website from scratch with various logic and features.

Game Development - We've streamlined our AcadeCoders Game Development sessions! They are using Godot 3.0 a new open-source game engine. Using this engine, our AcadeCoders campers program in a Pythonic scripting language known as GDScript, which enables them to take big steps into the programming world, while being captivated by their own ideas and game concepts.

Planning your summer? Check out our weekly calendar for June, July and August 2019!

Week #	Week of	Program	Description
1	Jun 24-28	Coding	ELECTRONICS
2	Jul 2-7 (4 days)	Coding	RASPBERRY PI EXPLORATIONS
3	Jul 8-12	Coding	PYTHON 0 TO 100
4	Jul 15-19	Game Development	PYTHON POWER GAME
5	Jul 22-26	Foundation of Web Design	JAVASCRIPT FRONT END
6	Jul 29-Aug 2	Foundation of Web Design	JAVASCRIPT BACK END
7	Aug 6-9 (4 days)	Coding	MACHINE LEARNING
8	Aug 12-16	Game Development	VIDEO GAME DEVELOPMENT

The maximum session size is 15 due to the number of available desktops. If a session is full, you may still register; however, you must provide your own laptop. The camps are structured so that campers who come to all 8 weeks will be able to use the knowledge gained in previous weeks. Each session is adaptable for different age groups. Kindly check the session descriptions as some sessions may accommodate younger children.

Weekly Sessions Enhanced by:

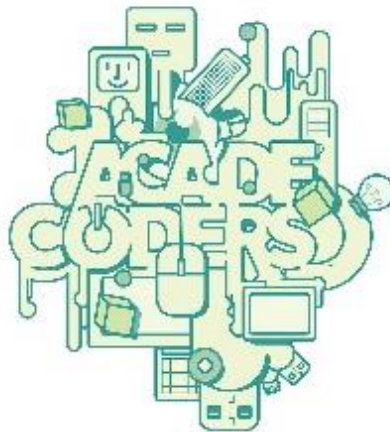
- 1 Instructor to 8 Campers Ratio for Personalized Learning
- Powerful Hardware
- Theory and Practice
- Drawing Lessons
- Gaming Fun Breaks
- Special Guest Lectures
- K2 Martial Art Jiu-jitsu Class
- Daily 1 Hour Outdoor Activities
- Achievement Bracelets
- Weekly Take Home Project

2019 SUMMER READING & WRITING PROGRAMME: Orton Gillingham Multisensory Teaching Sessions for Campers

For students with reading and writing difficulties, we offer Orton Gillingham-based multisensory teaching sessions, in addition to the activities provided during our AcadeCamp or AcadeCoders sessions. The OG multisensory teaching sessions will be offered for 1 hour, 5 times a week (4 times a week during holiday weeks), and the participant must register for at least 4 weeks, or preferably all summer, in order for the programme to be effective. If a student has not been evaluated previously, pre- and post-testing will be provided. With the Orton Gillingham approach, a student learns using the visual, auditory, kinesthetic, and tactile senses simultaneously. The OG multisensory teaching sessions will take place within the 9:00 am – 4:00 pm camp day.

Additional Information

Camp Hours:	9:00 am – 4:00 pm
Pre & Post Camp Care:	8:00 am – 9:00 am; 4:30 pm – 5:30 pm
Lunch Program:	Includes 2x pizza on Mondays (on 5-day weeks), hot lunch with dessert & fruit Tuesdays – Fridays
Contact Information:	Email us at info@acadecap.org or call 613-721-3872



Week 1: June 24 – June 28

ELECTRONICS

AcadeCoders campers gain a deeper understanding and appreciation of how computers work, they will learn about resistors, transistors, LEDs, binary and logic gates. Using this knowledge and a breadboard, campers will construct their own circuits. Campers will get away from computers to make something out of various components and see their hard work pay off.

Week 2: July 2 – July 7 (4 days)

RASPBERRY PI EXPLORATIONS

AcadeCoders campers will be introduced to the Raspberry pi. They learn about the raspberry pi, what it's used for and how to move around in it. They explore the Linux operating system, working outside of Windows or Mac OS. Campers create their own stop animation movie using the pi's camera, introducing them to the terminal, pi's general purpose input and more.

Week 3: Jul 8 – Jul 12

PYTHON 0 TO 100

AcadeCoders will be introduced to the python programming language. They will learn about conditionals, loops, exceptions, file io, object-oriented programming, good software design. Campers will learn about scripting, syntax, and code readability and more. Python camp will be a good introduction to higher level programming for students interested in going further and building on existing skills.

Week 4: Jul 15 – Jul 19

PYTHON POWER GAME

AcadeCoders campers learn to make games by using the powerful, but easy to grasp, language of Python. Create a running game from nothing by learning about the game loop and how to manipulate images on screen. Explore your own imagination and create a world that is all yours in this fun and educational camp. Campers with no prior knowledge of programming are welcome as this will teach core programming concepts and is a great gateway into programming.

Week 5: Jul 22 – Jul 26

JAVASCRIPT FRONT END

Learn to create a web page by learning the basics of HTML/CSS and JavaScript. AcadeCoders campers will create a completely customized webpage. Create an interactive interface you can use directly in a browser like Chrome or Firefox. This camp aims to teach the basics of creating the web pages seen all over the internet. This educational camp is a fun learning experience and leads into fields such as Web Design and even Full Stack Developer.

Week 6: Jul 29 – Aug 2

JAVASCRIPT BACK END

Learn to host a web page by learning to use Node.js. AcadeCoders campers will learn to host their own webpage. Create an static and dynamic server which you can run on your own computer (or on your Raspberry pi). This camp aims to teach the basics of creating the back end of web pages seen all over the internet.

Week 7: Aug 6- Aug 9

MACHINE LEARNING

AcadeCoders campers learn to generate faces and other images with the use of Machine Learning and different neural networks. By feeding our machine images of whatever you like, we can generate new images created by our computer. Machine learning is a new and exciting field of Computer Science that leads into advanced concepts in AI and as well as being a tool to solve large problems.

Week 8: Aug 12-Aug 16

VIDEO GAME DEVELOPMENT

AcadeCoders campers learn to make games by using the open source game engine of Godot. With the help of this free tool, campers will learn to make a video game from one of the many available bases and can modify the game to become something completely their own. Campers of a varying skill level are welcome in this camp.

Registration Form

Selection of Weeks, Sessions and Streams

- | | | |
|--------------------------|------------------------------|--------------------------------------------------|
| <input type="checkbox"/> | 1: Jun 24 – 28 | Electronics |
| <input type="checkbox"/> | 2: Jul 2– 5 (4 days) | Raspberry Pi Explorations |
| <input type="checkbox"/> | 3: Jul 8 – 12 | Python 0 to 100 |
| <input type="checkbox"/> | 4: Jul 15 – 19 | Python Power Game |
| <input type="checkbox"/> | 5: Jul 22 – 26 | JavaScript Front End |
| <input type="checkbox"/> | 6: Jul 29 – Aug 2 | JavaScript Back End |
| <input type="checkbox"/> | 7: Aug 6 – 9 (4 days) | Machine Learning |
| <input type="checkbox"/> | 8: Aug 12 – 16 | Video Game Development |
| <input type="checkbox"/> | Summer SMT (4 weeks) | Please indicate week numbers: <i>ex. 1,2,3,4</i> |

Fees: **\$350** per 5 day week
\$290 per 4 day week (holiday week)

Discounted rate for all 8 weeks	\$ 2412.00
Discounted additional week rate: (5 days)	\$ 333.00
(4 days)	\$ 276.00
Summer OG Multisensory Teaching Option: 4 weeks, 1 hour sessions daily	\$ 950.00

First week: 5-day week or 4-day week	1X	\$350 or 290
Additional 4-day week:	#X	\$ _____
Additional 5-day weeks:	#X	\$ _____
OG Multisensory Teaching Option (4 weeks)	#X	\$ _____
Subtotal Session Fees:		\$ _____

Pre-and Post Camp Care: \$25/ 5-day week	#X	\$ _____
\$20/ 4-day week	#X	\$ _____
Subtotal Supervision Fees:		\$ _____

Lunch Program: \$55/ 5-day week (incl. 2x Pizza)	#X	\$ _____
\$45/ 4-day week	#X	\$ _____
Pizza (Mondays Only): \$5/slice	#X	\$ _____
Subtotal Meal Fees:		\$ _____

TOTAL FEES: **\$ _____**

Child's Name: _____ Sex: M / F

DOB: YYYY/MM/DD Current Grade: __ Age: __ Health Card#: _____

Parent's/Guardian's Name: _____

Address: _____

Postal Code: _____ Email: _____

Tel-Home: (XXX) XXX-XXXX Work: (XXX) XXX-XXXX Cell: (XXX) XXX-XXXX

Emergency Name: _____ Tel: (XXX) XXX-XXXX

Contacts: Name: _____ Tel: (XXX) XXX-XXXX

Special concerns, needs, health, allergies, behavioural etc.

Media Consent

There are times we photograph or videotape the children participating in camp activities. We will publish some of these pictures (i.e.: newsletters, websites, Facebook, twitter, brochures, newspaper ads, etc.), without naming individual campers. Académie de la Capitale/École internationale Acadecap International School is requesting permission to use photos/videos of your child. Please note that remuneration will not be given for the use of photos/videos.

I give Académie de la Capitale/École internationale Acadecap International School permission to publish pictures of my child

Signature of Parent/Guardian

Initial or Sign

Date YYYY/MM/DD

Waiver

I hereby release and forever discharge Académie de la Capitale/École internationale Acadecap International School, its directors, its employees, agents and all persons authorized by it from any claim, damages, action or cause of action or otherwise that may result from either personal injury or property damage suffered by the said child engaging in school activities including field trips provided, however, that the school and its employees and agents exercise reasonable care.

I hereby authorize the administrators, staff and/or excursion supervisor(s) to act on my behalf as my agent(s) to engage medical attention or hospitalization if required on an emergency basis.

Signature of Parent/Guardian

Initial or Sign

Date YYYY/MM/DD

Finances

Please make cheques to **AcadeCap International School** ASAP to ensure a spot as our camps fill up quickly.

Payment by Interac e-Transfer:

finance@acadecap.org (Please indicate child's name in description and provide password in separate email.)

Please note there are **no** refunds.