

# ACADECODERS 2017

**Game Design and Programming**

**Ages 9 and up**

AcadeCoders 2017 will challenge campers to design and code their own extreme racing game and/or endless runner game. Young coders will learn *blueprint* (visual scripting) and *visual basic*, while navigating and leveraging unreal: the industry standard game engine used by today’s biggest studios. unreal engine is an ideal way to gain a practical feel for code, all the while learning an actual industry skill set, yet it is a big, nay, very big, piece of software. That’s why AcadeCoders 2017 is an in-depth camp experience that allows campers to either come in for a week to build a playable prototype, or to come in for several weeks, and build upon their previous knowledge, refine different aspects of their game, and master different aspects of unreal Engine.

AcadeCoders 2017 is a summer camp, but it’s also a course, and a flexible one at that. Using the unreal engine as a way to learn code allows us to create a differentiated learning environment for campers of various ages and coding ability so as to challenge every camper to the fullest. Using unreal engine provides new coders with one of the world’s most robust and powerful sandboxes as a setting in which to learn how to code with tangible and immediate results. And it provides more experienced coders the opportunity for exponentially more customization by modifying the unreal engine sandbox itself through the engine’s API.

**Weekly Sessions Enhanced by:**

* 1 Instructor to 6 Campers Ratio for Personalized Learning
* Powerful Hardware
* Game Design Theory
* Drawing Lessons
* Photography Sessions
* Minecraft Fun Breaks
* Visit to OCR or Fun Haven
* Special Guest Lectures by Professional Race Car Drivers, RC Car Racers, Game Designers and Disney Animators
* K2 Martial Art Jiu-jitsu Class
* Outdoor Activities
* Achievement Bracelets

Every week will include Friday Race Day/Marathon: a day devoted to racing/running the tracks they designed to compete for high scores and achievement bracelets.

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| **2017 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](mailto:info@acadecap.org) or call 613-721-3872

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**Week 1 to 4: *Extreme racer***

**Week 1: June 26 – June 30 RACER ENVIRONMENTAL DESIGN**

Modelling and Programming your Race Track and Environment

Race! But on what, and where? This inaugural AcadeCoders 2017 module will introduce campers to *blueprint* visual scripting components, while focusing on the big picture: the landscape and the environmental elements that form the race track. Campers will use their imagination and unreal engine modelling tools to create their ideal setting, obstacles and track, all in preparation for Race Day. They will also delve deeper into the unreal engine API to understand how to further leverage blueprint through custom coded components that will allow them to further personalize their environment.

**Week 2: July 4 – July 7 RACER DESIGN**

Designing and Programming Your Racer

Race! But with what? This AcadeCoders 2017 module will introduce campers to vehicular *blueprint* components while focusing on their hovering, sailing, rolling, bouncing, race craft. Campers will use unreal engine to model and paint their racer, using a mix of pre-modelled and custom-made parts. They will also delve deeper into unreal engine API in order to customize the acceleration, top speed, and manoeuvrability of their racer. What’s better, a juggernaut, hurtling through obstacles but unable to corner, or a zippy flying mobile, attacking corners with a vengeance, but wary of larger vehicles? - find out on Race Day!

**Week 3: July 10 – July 14 RACER VISUAL AND AUDIO DESIGN**

Designing and Programming the Details: Textures, Sound and Light

Race! But why does everything look the same, and why can’t I hear anything? This AcadeCoders 2017 module will introduce campers to the breadth of workflows and tasks which go into making a triple A game, so that they can apply them in order to bring their own racing game to life. Campers will focus on elevating existing game components through sounds and textures from their surroundings through photography, HDR photography, and audio recordings. Campers will use blueprint components to procedurally texture their environment, modify sound elements, and thrill their opponents on Race Day.

**Week 4:** **July 17 – July 21 RACER** **GAMEPLAY EXPLORATION AND DESIGN**

Programming Advanced Game Mechanics and HUD Animations

Race! But what are the rules, and how do I know what my opponents are doing? This AcadeCoders 2017 module is all about the game itself: what makes it playable, what makes it fun, and why, for that matter, does it have to be a racing game? This module will have campers delving into the coded details of the gameplay, the physics engine, and the heads up display (HUD), all the while asking the big questions. The aim of this final race week is to take what was a racing game and to tweak it into something more refined, or something else entirely. Prepare yourself for Race Day? We’ll see.

***Do you want to up your game? Use week 5 to 8 to enhance your racer game, or….***

***take on a new challenge with endless racer?***

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**AcadeCoders 2017 Week 5 to 8: *endless runner, a classic arcade format***

**Week 5:** **July 24 – July 28 ENDLESS RUNNER ENVIRONMENTAL DESIGN**

Modelling and Programming your Endless Track and Environment

Run! But on what, and where? AcadeCoders 2017’s first Endless Runner module will introduce campers to *blueprint* visual scripting components, while focusing on the big picture: the landscape and the environmental elements that form the running track. Campers will use their imagination and unreal engine modelling tools to create their ideal setting, obstacles, and difficulty level, all in preparation for Friday Marathon! They will also delve deeper into the unreal engine API to understand how to further leverage blueprint through custom coded components that will allow them to further personalize their environment.

**Week 6:** **July 31 – August 4** **RUNNER DESIGN**

Designing and Programming Your Racer

Run! But with whom - a Peg-Leg Pirate, a Valkyrie, a Ninja? This AcadeCoders 2017 module will introduce campers to character-themed *blueprint* components. Campers will use unreal engine to design, model, and paint their runner using a mix of pre-modelled and custom-made limbs. They will also delve deeper into the unreal engine API in order to customize the resilience, top speed, and manoeuvrability of their character. What’s better, a hulking bowser, hurtling through the walls but hardly able to jump over those deadly gaps, or a leggy hopping machine, able to jump over gaps at will, but wary of physical obstacles? - find out on during Friday Marathon!

**Week 7:** **August 8 – August 11** **ENDLESS RUNNER VISUAL AND AUDIO DESIGN**

Designing and Programming the Details: Textures, Sound and Light

Run! But why does everything look the same, and what’s this awful song playing in the background? This AcadeCoders 2017 module will introduce campers to the breadth of workflows and tasks which go into making a triple A game, so that they can apply them in order to bring their own game to life. Campers will focus on elevating existing game components through sounds and textures that they have found and transferred from the real world through photography, HDR photography, and audio recordings. Campers will use blueprint components to procedurally texture their environment, modify sound elements, and thrill their opponents during Friday Marathon!

**Week 8: August 14 – August 18 ENDLESS RUNNER GAMEPLAY EXPLORATION AND DESIGN**

Programming Advanced Game Mechanics and HUD Animations

Run! Race! But what are the rules, and how do I know what my opponents are doing? This AcadeCoders 2017 module is all about the game itself: what makes it playable, what makes it fun, and why, for that matter, does it have to be a racing game? This module will have campers delving into the coded details of the gameplay, the camera, the physics engine, and the heads up display (HUD), all the while asking the big questions. The aim of this final week is to explore and tweak the classic format of the endless runner so as to provide players with a few surprises if not something completely unexpected. Prepare yourself for Friday Marathon? We’ll see.

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| C:\Users\Lucie\Documents\Lucielajacblack\Branding the school\2015\Logos\AcadeCoders.jpg**Registration Form**  **Selection of Weeks**   |  |  | | --- | --- | | **1**: June 26 – June 30 | Racer Environmental Design | | **2**: July 4 – 7 (4 days) | Racer Design | | **3**: July 10 – July 14 | Racer Visual and Audio Design | | **4**: July 17 – July 21 | Racer Gameplay Exploration and Design | | **5**: July 24 – July 28 | Endless Runner Environmental Design | | **6**: July 31 – August 4 | Runner Design | | **7**: August 8 –11 (4 days) | Endless Runner Visual & Audio Design | | **8**: August 14 – August 18 | Endless Runner Gameplay Exploration and Design | | **Summer SMT (4 weeks)** | Please indicate week numbers: ex. 1,2,3,4 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Fees:** |  | **$465** per 5 day week  **$375** per 4 day week (holiday week) | | | |  |  |  | | | | **Discounted rate for all 8 weeks** | | |  | **$ 3200.00** | | **Discounted additional week rate: (5 days)** | | |  | **$ 440.00** | | **(4 days)** | | |  | **$ 355.00** | | **Summer OG Multisensory Teaching Option:  4 weeks, 1 hour sessions daily** | | | | **$ 950.00** |  |  |  |  |  | | --- | --- | --- | --- | | **First week: 5-day week or 4-day week** | **1X** |  | **$**465 or 375 | | **Additional 4 day week:** | #**X** |  | **$**\_\_\_\_\_\_\_\_ | | **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:** $50/ 5-day week (incl. 2x Pizza) | #**X** |  | **$**\_\_\_\_\_\_\_\_ | | $40/ 4-day week | #**X** |  | **$**\_\_\_\_\_\_\_\_ | | **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 Contacts: | Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | Tel: (XXX) XXX-XXXX | | | 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, website, 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**](mailto:finance@acadecap.org)(Please indicate child’s name in description and provide password in separate email.)  **Please note there are no refunds.** |