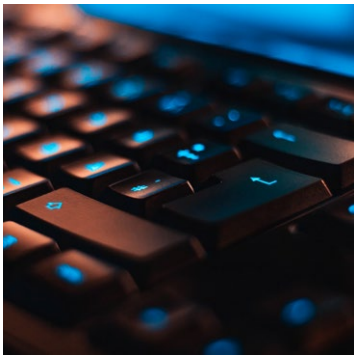
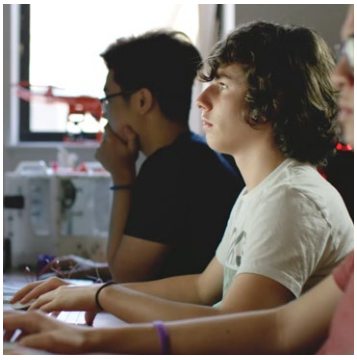
GAME THEORY CAMP

CATS BOSTON

“For students who are interested in business, politics, psychology or strategy games as well as those who are seeking to better understand and predict behaviour, or become better strategic decision makers themselves.
You will explore the fundamentals of strategic decision making through Game Theory”





BOSTON, USA

WHAT’S INCLUDED:

TUITION
Applying the mathematics of game winning to a variety of real-world situations, through lessons, workshops and research.

ACTIVITIES
We offer a variety of onsite activities including sports, arts and crafts and team games. Our activities provide opportunities for students to have fun and make international friends.

EXCURSIONS
Excursions allow students to really get to know the USA. We use destinations such as Downtown Boston as a classroom, where students will find historic and cultural information through guided walking tours and visits to museums and other places of interest.

CERTIFICATE
Awarded for the successful completion of the course including a final game promotion pitch.

GAME THEORY CAMP

STRATEGIC DECISION-MAKING

COURSE OVERVIEW

Game Theory provides a fun and engaging introduction to the fundamentals of strategic decision-making. Through the analysis of games, students begin to understand the different roles that players can take, the behavior that constitutes the optimal strategy for playing these roles, and the behavior that constitutes the optimal strategy for assisting or countering these roles. Using this knowledge, students interpret the current behavior of teammates and/or opponents in an attempt to determine their roles, recall the optimal strategy associated with these roles, predict the future behavior of other players based on their optimal strategy, formulate their own optimal strategy to best assist teammates and/or counter opponents, recall the role associated with this strategy, and implement the strategy by behaving in accordance with the calculated role. Furthermore, students gain an appreciation for how these concepts can be applied to fields including but not limited to business, economics, political science, computer science, logic, biology, and philosophy.

PROGRAMME OUTCOMES

You will:

Learn the basics of Game Theory.

Explore the key concept of dominance, best response and evolutionary stability.

Test play popular games to better understand industry trends.

Use feedback provided by classmates to fine tune your game and thinking.

Find out how to find the right publisher for your game.

Produce an elevator pitch to promote your game.

ACTIVITIES & EXCURSIONS

One full day excursion per week is included. Destinations may include Boston, New York and Six Flags Theme Park. Evening activities are varied and fun and may include discos, talent shows and international evenings.

COURSE INFORMATION

CLASS SIZE:	Maximum 16	**AGE RANGE:**	14 - 18	**COURSE LENGTH:**	2 weeks
ACADEMIC REQUIREMENTS/ LANGUAGE LEVEL:	Upper Intermediate B2 level recommended	**START DATES:**	10th July 2022	**FEES:**	$3,650.00 (Two weeks)

SAMPLE PROGRAMME

WEEK 1	MORNING	AFTERNOON	EVENING
	09.00 - 12.00	13.00 - 16.30	19.30 - 22.00
SUN	Arrival at accommodation and induction		Welcome Evening & Ice-breakers
MON	Basics of Game Theory	Strict & Weak Dominance. Students will learn the key concept of dominance	Music Quiz
TUES	Iterative Deletion of Dominated Strategies & Best Response. Connecting to political science, students will implement the iterative deletion of dominated strategies method to derive the Median Voter Theorem	Key concept of best response	Games Show Night
WEDS	Wednesday - Pure Strategy Nash Equilibrium. Using a coordination game modelling the stock market	Students will explore the Nobel prize winning work of Thomas Schelling to understand both the difference between strict and weak Nash equilibria	Sports Tournament
THUR	Mixed Strategy Nash Equilibrium - Connecting to sports, students will analyse models representing strategic decisions in competitive sports	Strategy - students will learn the three different ways to interpret mixed strategies, and begin to interpret their calculated mixes	International Night
FRI	Evolutionary Stability: Connecting to biology, students will analyse simplified models such as the hawk-dove mode	Evolutionary Stability continued	Disco Dance Party
SAT	Included Full Day Excursion e.g. Canobie Lake Park		

BREAKFAST | LUNCH | DINNER

WEEK 2	MORNING	AFTERNOON	EVENING
	09.00 - 12.00	13.00 - 16.30	19.30 - 22.00
SUN	Onsite Activities e.g. Team Building Games, or Optional Full Day Excursion (at extra cost -please book before arrival)		American Culture Evening & Trivia Night
MON	Research - learn about the different board game genres	Students test play some popular games to better understand industry trends and discover which mechanics or themes they may want to implement in their game	Team Building Exercises
TUES	Game Development	Development continued: Students design a rule set and construct a Minimum Viable Product	Karaoke Night
WEDS	Play test & Refine	Using feedback from classmates and their own observations, students modify their game to bring it more in line with their vision	Sports Tournament
THUR	InDesign - An introduction to Adobe InDesign	InDesign - Create polished digital versions of cards, game boards, player mats and any other printed materials for their game	Talent Show
FRI	Sale - Students learn how to find the right publisher for their game as well as which types of games each tends to publish	Students develop an elevator pitch - a 30 second explanation of their game	Themed Disco
SAT	Included Full Day Excursion e.g. Newport, Rhode Island		
SUN	Departure		

BREAKFAST | LUNCH | DINNER

This is a sample programme and all elements may be subject to change.