

## SATURDAY COURSE SAMPLE COURSES

### **OCEAN COMMOTION - Marine Biology**

You have just joined a team of oceanographers working for the New England Aquarium. Your initiation will be watching some amazing videos of what life is like approaching the ocean floor, and you'll be in charge of identifying specimens for an exhibit you are in charge of at the Aquarium. New exhibits may be about irregularly shaped fish, bottom dwellers, New England coastal fish, camouflage, unusual locomotion, sponges, guessing whether something is a plant or animal, predator/prey etc. You'll find out about species which fit your category and share your excitement and knowledge as we develop a full room, black light, musical aquarium display. While exploring the exciting underwater world, students will also have the opportunity to dissect sea stars and squid and learn about the internal and external anatomy of these amazing animals.

### **THE SATURDAY BEAT - Journalism**

Did you ever think that you might want to work someday for your school newspaper, Sports Illustrated, or perhaps People Magazine? Well here's your chance to learn the skills you'll need! We'll learn techniques for interviewing, researching, and putting information together and you'll have the option of focusing your writing on news articles, sports, gossip, fashion, advice columns, or perhaps try your hand at all of them. When this course is finished you'll know a lot more about how to craft an interesting journalistic story and you'll have some pieces of writing for your own portfolio.

### **COMEDY, TRAGEDY, ADVENTURE – The Works and Times of Shakespeare**

Calling all fans of comedy, tragedy, adventure, mayhem, swordplay, drama, suspense, mystery, and misdirection! If any of those words describe films or books you have enjoyed, then this is your chance to get up close and personal with the guy who started it all - William Shakespeare, the immortal Bard of Avon. We will travel back in time to a world of exciting characters, earth shattering events, monumental battles, treachery, and amazing stories. Widely regarded as the greatest writer in the English language, his works are still as exciting, relevant, and understandable today as they were over 400 years ago. Whether you already know a lot about Shakespeare or not, this class is for you! Together we will be reading aloud some of Shakespeare's most thrilling plays and we'll even discover how many of our popular modern movies are based on his work.

### **101 THINGS - What Do YOU Want To Learn?**

Come explore 101 things (give or take a few!) to learn or do before you reach high school. Ever wonder how to write in code? Interested in trying your hand at cupcake decorating? How about sewing a patch on your favorite pair of jeans, feeding a baby, or creating a book from scratch? Can you perform the Heimlich Maneuver, build a fire, cook a basic meal, use a compass, read a map, tell a joke, give a speech, make a secret container, take a good photo, sew on a button, do your own laundry, write a persuasive letter for an important cause, survive a shipwreck, or play a ukulele? Some things we'll actually do in class, some we'll read about, and others we'll postpone for future exploration (we won't actually wrestle an alligator, but we might read about how to do it... just in case!). There's no limit to the adventures on your "Life List" (which you will create during the session) and you can bet we will get some of those items checked off during our class time and leave the session with skills to pursue the ones that are still left after six weeks

### **SURVIVOR BRAIN GAMES – Outwit, Outplay & Outthink**

No, we won't be sending you to a tropical island to eat tree bark and grass. But if you have ever watched Survivor you have seen the contestants challenged by logic problems, strategy games, math or word puzzles, and adventure challenges. If you really want to learn how to outsmart everyone, while having fun and exercising your mind at the same time, join us for Survivor Brain Games – the ultimate challenge class. Like actual Survivor contestants, sometimes you'll solve things individually and sometimes in groups. We'll skip all the physical challenges, and we won't be voting students out of the class each week, but we will prepare you all to outwit, outplay, and outthink everyone around you so that someday you may be TV's next sole survivor.

### **IMPROV – AND SUPERSIZE IT!**

Jump aboard this exciting class and explore the excitement of Improv Theater. We'll begin with group exercises, improv theater games, and skill building activities. Students will develop a sense of play and spontaneity and increase their ability to focus and listen to others. Improv helps actors to think "on their feet" which is invaluable at auditions, in a live performance, or even in their school classrooms. Students will be encouraged to use their imaginations as they learn to create characters, build scenes, and invent whole worlds without ever using a costume, prop, or set piece. Students will also practice teamwork to help them work as an ensemble and learn the discipline of performance. Many of the best actors and comics you are familiar with started off doing improv – now it's your turn to shine! We'll finish with a performance for all.

### **COOL CARTOON CREATIONS**

Did you ever read the cartoons and comic strips in the Sunday paper and wonder if you could create your own? Well the answer is YES. Anyone can learn to draw and in this class we'll create our own cartoon characters and comic strips. By looking at single cell cartoons, comic strips, and perhaps a longer graphic novel we'll discover the secrets to developing interesting characters that readers really care about. We'll explore comic strips that are serious, exciting, funny, political, historical, or even inspirational. In class you'll learn drawing techniques, design storyboards, and develop characters. At the end of the session you'll be well on your way to becoming the creator of the next Calvin & Hobbs or Spider Man.

### **INVENTION CONVENTION**

Are you burning with ideas, interested in how things are put together, and amazed at how our life has been changed by inventions? If so, come join us and become the next Thomas Edison. Each week, students will start with an assortment of everyday materials (cardboard tubes, tape, nuts & bolts, pieces of wood, plastic spoons, toothpicks, etc.) and then design and build an invention that solves a particular problem from the past, present or future. Working alone or with others you might design such things as an accurate, non-electronic timer, a device to move heavy objects, a better mouse trap, a single utensil to replace the fork, spoon, and knife, or a mechanical security alarm that will keep your younger sibling out of your room. We'll take a look at the work of some famous inventors, become more familiar with how things work, and analyze what makes a good invention.

### **CORPORATE KIDS - Business and Economics**

Do you look forward to the day when you can get out in the world, become an entrepreneur, earn money and find out what the business world is all about? If so, Corporate Kids can give you an early start as we pool our ideas and develop a thriving business for the Saturday Course community. We will conduct market surveys and launch our own advertising campaign. You will attend board meetings and issue stock to finance your corporation. You will learn about the inner workings of the stock market and you will get to make, market, and sell a product. In the process we will discuss real companies like Amazon.com, Pepsi, Apple, and Nike and figure out what makes them succeed or fail. If you have lots of good ideas and like to work with a group of corporate kids, then this is the class for you.

### **HEROES, GAMES, & DEMIGODS – A Greek Odyssey**

Here's your chance to immerse yourself in the exciting world of ancient Greece, with a cast of characters that would make a bestseller book or an exciting Hollywood movie (actually, they did that with "Percy Jackson"). You'll learn about Greek mythology with the heroes, villains, monsters, gods, and demigods that abound. Students might find themselves competing in our own version of the Ancient Olympics (perhaps javelin throwing with a pool noodle??), learning the Greek alphabet, role playing the characters of the Trojan War, making comedy/tragedy masks or Greek vases, eating Greek food, or pondering the wisdom from the great Greek philosophers – the possibilities are almost endless. Come join us for our own Saturday Course Greek Odyssey (minus all the shipwrecks and sea-monsters).

## **AROUND THE WORLD WITH ART**

Get your passports ready, we're off for an incredible whirlwind tour of the globe as we create really cool art from around the world. We'll travel to many continents and make awesome art including Japanese Fish Banners, Indian Bhandani, and African Spirit masks. This class will be a great way to get to know distant lands and cultures without the jet lag, and you'll even end up with lots of terrific hand-made souvenirs from your trip.

## **BLOOD AND GUTS**

Since we know it's not crazy glue, bobby pins, rubber bands, or engines that keep us together and going, let us see exactly what does. We will be examining some of the important organs and systems in our body to determine how they function to keep us on the go. Be prepared to dissect chicken legs, sheep's eyes, brains, and hearts to better understand what is inside of you. You will get some bones and have to guess what they are or what function they serve by examining their shape. You will learn how to take your blood pressure, find out what nearsighted and farsighted really means, and you will never take your thumb for granted again. Who knows how many doctors launched their careers in Blood and Gut

## **SUPER SLEUTHS**

Crime alert! Calling all sleuths. A crime has been committed and we need the most astute minds to help us solve the mystery and identify the perpetrator. As a detective on our squad, you will be examining the scene of the crime, analyzing the physical evidence left behind, interrogating suspects, and running tests in the science lab in order to determine who has committed the crime. What can fingerprint, chromatography, DNA, and fiber analysis contribute to our understanding? Can you solve the mystery? Crack the case? Put on your detective hat and join the Saturday Course squad of super sleuths.

## **DARKROOM PHOTOGRAPHY**

Here's your chance to learn some new skills that are not only a lot of fun, but could become a life-long hobby, help you do awesome projects for school, or even help you in many future jobs. Did you know that there are many, many ways to experiment with photography? In this class we will explore the creative potential of light and light sensitive materials by making photograms, sun prints, and slide shows. We will use the Milton Academy darkroom where we will learn how to use special equipment and chemicals to develop and print our own pictures. We'll make postcards that you can send to your friends, tone photographs so that they'll look old-fashioned, and hand-color black and white pictures. Take this course and you will discover how much fun photography can be!

## **ALL NEW TRIAL COURT**

Can you think fast and win a case? Become a lawyer and participate in cases presented before a jury; be a witness and testify; or be a juror who must decide if the defendant is guilty. We'll take a look at cases that are making headlines today as well as some that have helped to shape the laws of this nation. The outcome of any case is never known until the jury decides! As we play a variety of games and run our own trials, you will become familiar with the judicial system. *Note: students who have taken Trial Court can take this course as it will cover new material. Note: This class is open to all. The material and cases are different from other Trial Court classes.*

## **SCIENCE MAGIC**

Wouldn't you like to entertain your family and friends with amazing magic tricks? Some of the most mind-boggling are based on scientific principles. We'll practice stunts using inertia, air pressure, surface tension, static electricity, center of gravity, and light. You'll even be able to do "impossible" balancing feats, make things disappear and create startling color changes. Through our magic we'll come to understand some important scientific principles. "Places everyone. Curtain is going up on Science Magic!"

## **ANIMANIACS – Stop Motion iPad Animation**

Have you ever wondered how movies like the Toy Story or Wallace & Gromit were created? In Animaniacs we will learn about fancy terms like "key frames" and "story boarding". After we learn the basics we will try and become the next Walt Disney. We will be creating video shorts using Claymation and other wicked cool techniques. The only thing you need to bring to class is your imagination.

## **ULTIMATE ENGINEERING CHALLENGE**

Could you build a bridge that supported a bowling ball in the middle with just thread? Or a platform that held up a brick in the middle of an earthquake (a "shake" table)? Or how about a tower that could stand up to a category 5 hurricane (a three speed fan or leaf blower). In Ultimate Engineering Challenge, you'll get a chance to learn about engineering and physics through weekly challenges that will pit you and your classmates, not against each other, but rather against several more formidable opponents: gravity, friction, pressure, wind, etc. Expect the unexpected – one week it might be a giant Ferris wheel, a super pipeline, a weird vehicle – we can't give you too many details in advance – we wouldn't want to make the challenges too easy. So come prepared to design, build, test, redesign, and rebuild. Are you up for the challenge?!!

## **CREATE YOUR OWN COMPUTER GAME**

You've played computer games. You've used word processors and Web browsers. But where did all that software come from? Did it come from someone's magic wand? No, of course not! It was created by a process we call "programming." In this course you'll learn how to design and write software as a beginning programmer with an exciting, and easy to learn program called Scratch. In six weeks you'll create a small but working computer game and will learn the skills that you need to continue further on your own.

## **DESIGN A BETTER HOUSE OF THE FUTURE– Architecture**

Have you ever thought about the kind of house you might want to build if you could build anything? Would it be a giant tree house? Or on a mountaintop? Would it include an indoor basketball court, a riding stable, or your own movie screening room? Would it focus on technology, with computer screens in every room or be super sustainable, with solar panels and special recycling bins. In this class students will use their imaginations and personality to design different ideas of houses of the future. Students will learn about various tools of the architect's trade including the blueprint and perspective drawing. We'll explore houses of the past and present with to find elements we might want to incorporate in our own designs. Some students might make a collage to help generate 2-dimensional ideas for their ideal house or perhaps use recycled material to make models to help generate 3-D ideas for their house. Join us and plan your very own house of the future.

### **SPACE INVADERS - Astronomy**

Join us on our thrilling journey through the universe as we tour the solar system, the constellations, stars, nebula, planets, and beyond! We'll learn to tell time and to navigate using the night sky. Make sure you have plenty of life insurance just in case we collide with such "space invaders" as comets, asteroids or meteors, or in case we disappear into a black hole! When you return from your space venture your team will construct a room-size, glow-in-the-dark planetarium!

### **WRITER'S EYE - Creative Writing**

Tired of the same old writing assignments? Get ready to have some fun as you look at the world through your own imagination as well as through the eyes of others (not necessarily human!). You will develop your own creativity and deepen your writing skills as we explore new worlds through written expression. We will read poetry and stories, play with language, and find inspiration in a wide variety of ways. You will learn to use all your senses and knowledge of the world to create strong images in your writing. You will finish the class with a number of written pieces that can be added to your writer's portfolio.

### **LEADERSHIP ADVENTURE - Leadership Training, Public Speaking, Debate & More**

Do you like adventure? Do you like to argue and figure things out? Can you make tough decisions and overcome difficult challenges? Might you be a future senator, CEO, explorer, teacher, coach, or Saturday Course intern? If so, this is the course for you! In this exciting course you'll get the opportunity to gain leadership skills that will help you in school and in anything you choose to do in life. You'll get a chance to explore and write about important issues and sharpen your public speaking and debating skills. And since good leaders also need to be good listeners and team members, you'll work with your classmates to tackle exciting challenges and brain-tangling problem solving activities. Could your team escape from a deserted island if all it had was a one-person boat? Could you make a speech in front of your entire school to convince everyone that they should stop littering and start recycling? Get ready for a variety of challenges and learn to take charge!

### **A SERIES OF MYSTERIOUS CLASSES**

I am sorry to tell you I can explain little about what will occur in this mystery class. It is possible we will study the contents of boxes too horrible to open, learn to detect dreadful lies, examine strange and inexplicable patterns, decode unspeakable messages, and do any number of other confounding things I cannot bear to mention. I strongly advise you, choose from any of the other Very Fine Descriptions listed in this course selection guide and save yourself from the troublesome lessons suggested here. \*Our apologies to Mr. Lemony Snicket for appropriating his style in the description above. While it may appear otherwise, appearances are often deceiving and this course is not about his popular books.

### **SUPERHEROES & SUPERVILLIANS - Science, Writing, Philosophy, Culture, Literature & More**

Are you a fan of Spider-Man, Wonder Woman, Captain Underpants, or the Avengers? Did you know that the Smithsonian's National Museum of American History offers a course about superheroes? What super power would you choose if you could? Join us as we explore superheroes and supervillains - from their history to their powers to their impact on our culture. We'll look at books, comic books, graphic novels, animated cartoons, and scenes from movies as we figure out what makes them so cool. You'll all have a chance to design your own superheroes and/or supervillains, choose their super powers, and figure out what makes them tick. Which super powers break the rules of modern physics and which might be possible? You'll need to think about their origin story, their ethical system, and who their archenemy is. Do they want to save the world or are they after world domination? No special abilities are required to take this class, though those with super powers are certainly encouraged to join! (note: this is not a comic book drawing class, though students with an interest can certainly draw their creations)

### **ON STAGE - Acting**

Ever see an actor or actress in a play, TV show, or movie and think, "I'd like to do that!?" Then join us for a "dramatic" adventure in On Stage Act II. Acting is not only a challenging and rewarding career path, but can also be a great hobby. Acting encourages cooperation, communication, confidence, and public speaking skills as well. In On Stage we will participate in exercises that will help you express yourself in front of other people, and you'll have fun along the way. We'll end with a performance for all to see! This class is appropriate for any level of student, from beginner to advanced. *Note: students who have already taken On Stage or other acting classes may take this course.*

### **MAKE YOUR OWN CITY**

Have you ever wondered what it would be like to build a city? Well, get ready to find out because, street by street, we will build our own, spectacular, astounding, never-before-seen metropolis. You say no cars allowed, just horses? You want this city under the sea? You got it. We'll buy our land, plan the development, and negotiate any compromises that need to be made, pay taxes, and watch the city and our investments grow. Your neighbor may have lots of ideas too. We'll all work together to create our city - we'll have to move fast because people are moving in soon.

### **SPEED RACING - (BUILDING, TESTING & RACING) - The Science of Motion**

There is excitement in the air as two students bring their boats to the stream table. Each person in the class has been given the same materials and challenged to design a speedy racing boat. After testing, experimenting and changing designs, the time has come to enter the contest. In this class you'll design cars and boats made from simple materials (Styrofoam, rubber bands, toothpicks, etc.) and then test, redesign, and eventually race them as you learn some basic principles of physics. You'll have fun as you learn about momentum, inertia, friction, force, mass, acceleration, and velocity by building and racing cars and boats. "Racers: On your marks, get set, go!"

### **MATH MANIACS**

Tired of using worksheets to learn math? Forget about boring arithmetic problems. Wouldn't you rather solve baffling geometric puzzles, play math games where the action is fast paced and exciting, learn how to "beat the odds" as we study probability, or unravel perplexing logic puzzles that have defied the masses? In Math Maniacs you'll have a chance to do all this and more! We'll play mind-stretching math games and tackle a wide assortment of unusual (and sometimes even wacky) math challenges that will test your thinking skills and help you develop strategies to find solutions. This is not your average arithmetic course but rather an exciting ride through the world of math games, logical mysteries, games of chance, spatial geometric puzzles, and other mind-tingling math activities. This class will give you an exciting hands-on experience that will make you realize how much fun math can really be! Expect the unexpected!

### **THE SATURDAY COURSE RUNWAY – Fashion Design**

If you love clothes, color, patterns, fabric, drawing and making things, then this is the class for you. We will learn about fashion trends and costuming through the ages, significant fashion designers, as well as how to design contemporary fashions. While we won't be machine sewing in this class, students will learn embellishing techniques, some basic hand sewing, and how clothing is constructed to fit the human body. We will draw and paint fashion designs of our own vision for T-shirts, basketball sneakers, hats, jackets, or whatever inspires you. We'll create collage outfits from fabric swatches, magazines, and other materials. Students may get the chance to produce fashion designs using computers or iPad fashion apps, construct a model of a fashion runway, or transform existing T-shirts into one of a kind pieces – there are so many possibilities!