



Castilleja i2 Camp Schedule Summer 2016

i2 Camp Details

The camp is for girls only.
Jr. Camp is open to entering 5th-6th graders.
Sr. Camp is open to entering 7th-8th graders.

Each course has a maximum of 20 campers and 3 instructors. The team of instructors includes an experienced classroom teacher, a graduate student and a high school near peer educator.

Campers attend camp from 9am to 4pm and have 1.5 hours a day dedicated to lunch, recess and camp-wide activities. Campers also have a morning and afternoon snack break.

We offer extended afternoon care for an additional fee. We do not offer transportation to and from camp.

Lunch is included in enrollment fees, as are morning and afternoon snacks.

Enrollment Tips

Campers enroll in one course each week.

Courses are \$850 per one-week course and \$750 per course if registered for two or more weeks. The weeks do not need to be consecutive. Please note that there is no camp on July 4th.

Camp Schedule and Course Descriptions

Weekly offering schedules for both Junior and Senior i2 camps and course descriptions can be found on page 2 and 3.

Camp Schedules

Junior Camp	Challenges of Engineering	Genetics, DNA & The Human Body	Our Transforming World	Time, Space & Other Dimensions	Robotics and Electronics
July 5 - July 8 <i>(No camp July 4th)</i>			Engineering Ice Cream		Building an Interactive, Friendly Monster
July 11 - July 15	Kinetic Sculpture	Molecular Biology			
July 18 - July 22	Cyber Security	Surgical Techniques			
July 25 - July 29		CSi2: Crime Scene Investigations		3D Printing	

Senior Camp	Challenges of Engineering	Genetics, DNA & The Human Body	Our Transforming World	Time, Space & Other Dimensions	Robotics and Electronics
July 5 - July 8 <i>(No camp July 4th)</i>	Kinetic Sculpture	Molecular Biology			
July 11 - July 15			Engineering Ice Cream		Building an Interactive, Friendly Monster
July 18 - July 22		CSi2: Crime Scene Investigations		3D Printing	
July 25 - July 29	Cyber Security	Surgical Techniques			

COURSE DESCRIPTIONS



Cyber Security

Topic: Challenges of Engineering

Developed By: United States Naval Academy

Do you have what it takes to protect yourself from hackers? What would you do if your personal information was stolen online? In this course, you will learn how to protect yourself when using social media, shopping, or accessing your bank account online. You will have the opportunity to code with Arduino, explore computer logic, build your own Morse code machine, simulate a virus outbreak, and crack encrypted messages.



Kinetic Sculpture

Topic: Challenges of Engineering

Developed By: MIT Edgerton Center

Campers are introduced to key concepts and skills of kinetic sculpture, including balance, gearing, energy sources and design-oriented thinking. They will use the work of Alexander Calder, George Rhodes, Dug North and Arthur Ganson as examples of various forms of moving sculpture. Each day they use the principles they are learning as the basis for their own creations, and at the end of the week they bring together their complete array of new skills to create a large-scale, chain-reaction-type artwork.



CSI2: Crime Scene Investigations

Topic: Genetics, DNA & The Human Body

Developed By: Jessica Cohen PhD

Have you ever wondered how law enforcement uses science to catch criminals? Have you ever watched a crime show on television and questioned if the techniques they were using are real? If so, this is the course for you! Through this course you will become a member of a crime scene unit and learn how to act a crime scene, gather evidence and analyze data. You will learn about fingerprints, fibers, hair, dental impressions, tool marks, blood spatter and much more!



Molecular Biology

Topic: Genetics, DNA & The Human Body

Developed By: Jessica Cohen PhD

In this course you will have a chance to learn about biological principles, laboratory techniques and how they relate to the latest fields of research and medicine. Here you will get a taste of what it is like to be a research scientist. This course will focus on advanced cell processes, human diseases, bioethics and much more! You will also have the opportunity to compare human traits and genetic make-up to other living organisms.



Surgical Techniques

Topic: Genetics, DNA & The Human Body

Developed By: New York Hall of Science

Have you ever wondered what it would be like to be a physician or surgeon? In this course, you will investigate how the body works by participating in a range of hands-on activities, such as dissections and construction of life-sized physiological system maps (skeletal, nervous, circulatory, immune). You will conduct simulated surgeries, perform biopsies, and learn how to suture. You will also learn about important medical/surgical breakthroughs and famous medical marvels throughout history.



Engineering Ice Cream

Topic: Our Transforming World

Developed By: Engineering is Elementary, Museum of Science Boston

Everyone across the world needs to eat. As populations grow and we learn more about science and engineering, the way we produce and gather our food can change drastically. Urban agriculture is now in vogue, as community gardens have sprung up all over cities and the advances in hydroponics and aeroponics have taken root. In this course, you will explore the future of food and food production culminating in creating a summertime treat.



3D Printing

Topic: Time, Space & Other Dimensions

Developed By: MIT Edgerton Center

3D printing is revolutionizing our ability to bring ideas to life, and now it's your turn. In this hands-on course, you will be challenged to rethink how you think - you live in a 3D world, but do you think and problem-solve in 3D? Work among a creative team of flourishing inventors to brainstorm, sketch, model, print, and build static and dynamic 3D systems. By the end of the week, you will have the knowledge and skills to utilize 3D thinking and 3D printing as tools to solve problems in your everyday world!



Building an Interactive, Friendly Monster

Topic: Robotics & Electronics

Developed By: MIT Media Lab

Have you ever wanted your stuffed animals or other toys to come alive? Now they can! In this course, work with fabric and electronics to make your own interactive friend. You will use conductive thread, felt, lights, speakers and sensors, to make a soft and cuddly monster that responds to you. Learn how to use programming to make your creature play music and glow at your command.