



PROGRAM SUMMARIES 2017

PROGRAM	CAMPUS	LOCATION	AGES	DAY	LENGTH	DATES	COST*
Advanced Design	CCCC	Hyannis	Grades 8 - 9	Full Day	5-day week	July 31 - August 4, 2017	\$275
EMT Exploration	CCCC	West Barnstable	Grades 6-8	Full Day	5-day week	July 31 - August 4, 2017	\$275
Exploration of Robotics and Game Design	UMD	Dartmouth	Ages 12 - 15	Full day	5-day week	July 10-14 or July 17-22, 2017	\$150
Flight Science	CCCC	West Barnstable	Grades 6-8	Full Day	5-day week	July 24-28, 2017	\$275
Kids College	BCC	Fall River	Elementary through high school	Full Day	5-day week	July 10 - Aug. 18, 2017	\$190
Look What I Created!	MCC	Canton	Grades 3 - 5	9 am – 2 pm	Two 5-day weeks	July 10 – 21, 2017	\$347
Maker Movement: Build a Bot	CCCC	West Barnstable	Grades 6 - 8	Full Day	5-day week	August 7 – August 11, 2017	\$275
Mobile App Development	UMD	Dartmouth	Ages 11 - 14	Full day	5-day week	August 7 - 11, 2017	\$150
Science Investigative Team	MCC	Canton	Grades 6 - 8	9 am – 2 pm	Two 5-day weeks	July 31 – August 11, 2017	\$347
Summer Science Academy	BSU	Bridgewater	Grades 6 - 8	Full day	5-day week	3 Sessions: July 10-14; July 17-21; July 24-28	\$400
Summer Science Academy	BSU	Bridgewater	Grades 9 -12	Full day	5-day week	3 Sessions: July 10-14; July 17-21; July 24-28	\$490
Summer Science Academy – Enduring Everest	BSU	Attleboro	Grades 6 - 8	8:30 am –2:30 pm	5-day week	1 Session: July 17-21	\$350

**Most programs offer scholarships to students unable to afford regular tuition.*

Advanced Design

SPONSOR: Cape Cod Community College

WHERE: Cape Cod Community College, Hyannis Center, Hyannis

WHO: 8th – 9th grade students

WHEN: July 31 – August 4, 9:00 a.m. – 4:00 p.m.

COST: \$275

CONTACT: Mary Conklin, (508) 375-5010 mconklin@capecod.edu

WEBSITE: <http://www.capecod.edu/web/ccpe/summer-of-science>

WHAT: Advanced Design is a creative, STEM-based, week-long program for students entering grades 8 and 9. The program will focus on developing cutting edge technology skills in Photoshop, Illustrator, InDesign and Muse. These programs make up many of the core elements that professional designers use. Students will work with Photoshop on projects such as photo manipulation, combination, and improvement. When using Illustrator, students will learn about digital drawing, typography and create their own logos. Exploring projects such as poster designs, students will grow their understanding of layout and creative design principles. Students will also work with Augmented Reality - the same techniques used to create Pokemon Go, and Google Glasses. Students will use Muse to first explore how to design a visually appealing, and easy to navigate an "app". Then each student will create their own website that will allow them to showcase the work they have done. In addition to the hands on skills using Adobe Creative Suite, students will learn the "why" of design. Why does one design look better than another? As well as how to create a visually pleasing image.

EMT Exploration

SPONSOR: Cape Cod Community College

WHERE: Cape Cod Community College, West Barnstable

WHO: 6th – 8th grade students

WHEN: July 31 – August 4, 9:00 a.m. – 4:00 p.m.

COST: \$275

CONTACT: Mary Conklin, (508) 375-5010 mconklin@capecod.edu

WEBSITE: <http://www.capecod.edu/web/ccpe/summer-of-science>

WHAT: EMT Exploration is a STEM-based, week-long program for children entering grades 6, 7, and 8. The program offers a fun, interactive, learning opportunity for children in the region to explore the EMT profession. Students will become familiar with emergency services, investigate emergency equipment operations, and learn basic first-aid procedures. Students will talk about important procedures in medical and fire emergencies, and learn what EMT's have to do in an emergency and rescue operation. This program will teach children important lifesaving skills (CPR/First Aid/AED Training) and how to be prepared to act in an emergency.

Exploration of Robotics and Game Design

SPONSOR: University of Massachusetts Dartmouth

WHERE: UMass Dartmouth campus

WHEN: Two separate one-week sessions, July 10-14 and July 17-21, 2017, 9:00 a.m. - 4 p.m.

WHO: Students ages 12-15

COST: \$150.00 per student per week; \$25.00 deposit should be mailed with application.

CONTACT: Sheryl Sears, s.sears@umassd.edu or 508-999-8457

WEBSITE: <http://www.umassd.edu/engineering/cis/cissummercamp/>

WHAT: Campers will work in teams to design a simple computer game, to make the robots move the way they want them to, to tell a story through computer animation, and to develop a mobile application. Campers will work in teams with our teachers and students and on the last day will show parents how smart and talented they are and what they

have accomplished. Campers will make new friends, have fun, and experience the value of teamwork. This camp may inspire you to choose computers as your career in the bright future ahead of you!

Flight Science Program

SPONSOR: Cape Cod Community College

WHERE: Cape Cod Community College, West Barnstable

WHO: 6th – 8th grade students

WHEN: July 24 – July 28, 9:00 a.m. – 4:00 p.m.

COST: \$275

CONTACT: Mary Conklin, (508) 375-5010 mconklin@capecod.edu

WEBSITE: <http://www.capecod.edu/web/ccpe/summer-of-science>

WHAT: Flight Science is a STEM-based, week-long program for children entering grades 6, 7 and 8. Students will work in engineering teams to build and fly 3 meter-tall (10 feet), hot air balloons. Teams will also design, build and fly payloads using their balloons. Students will also have the opportunity to experiment with model airplanes to learn why they fly and to optimize the flight of these airplanes. Students will take a break from their experiments to get checked out in a Cessna 172 as they learn to fly using flight simulators. Finally, students will put their knowledge of flight to the test when they build and optimize the flight of model gliders!

Kids College

SPONSOR: Bristol Community College

WHERE: Bristol Community College Campus in Fall River

WHO: Elementary, middle, and high school students

WHEN: Week-long programs featuring three educational tracks, July 10 - August 18

COST: \$190

CONTACT: Meaghan Rivet 508.678.2811, ext. 2059 / Meaghan.rivet@bristolcc.edu or Toll Free 800.462.0035 (MA & RI only)

WEBSITE: www.bristolcc.edu/workforce/communityeducation/kidscollege

WHAT: Kids College provides activities that develop skills and content in the areas of science and technology in a fun, engaging environment. Themed tracks include Cooking, Lego Engineering, and Minecraft. In addition, programs will focus learning around six countries to add to the educational experience. New for the summer of 2017: Physics Hubbub, Coding, and Mad Scientists.

Look What I Created!

SPONSOR: Massasoit Community College

WHERE: Massasoit Community College, Canton Campus

WHO: Elementary students (grades 3 - 5)

WHEN: July 10 - 21, 9:00 a.m. - 2 p.m.

COST: \$347

CONTACT: Shannon Skelly, (508) 588-9100 x1656 sskelly@massasoit.mass.edu

WEBSITE: <http://www.massasoit.edu/science4kids>

WHAT: This two-week session will introduce students to basic concepts in science, math and engineering. Our goal is to spark scientific imagination through creative and challenging projects. We encourage teamwork and social responsibility. Is there an idea for constructing a bridge lurking in the back of your brain that we can test? Would you like to learn how to design and build a simple machine? Would you like to try your hand at studying habitats where local animals live? This is your chance to test your ideas or simply find out how things work. We'll explore our world through science and

use math to explain what happened. Team projects can include many topics. Sign on to join this investigative team and let's head outdoors together to have some fun, to look at the world around us, and to figure out how does "that" work. Warning: you may never look at science and math the same way again after having this much fun! Students will need to bring a snack and lunch.

Maker Movement

SPONSOR: Cape Cod Community College

WHERE: Cape Cod Community College, West Barnstable

WHO: 6th – 8th grade students

WHEN: August 7 – August 11, 9:00 a.m. – 4:00 p.m.

COST: \$275

CONTACT: Mary Conklin, (508) 375-5010 mconklin@capecod.edu

WEBSITE: <http://www.capecod.edu/web/ccpe/summer-of-science>

WHAT: Maker Movement is a STEM-based, week-long program for students entering grades, 6, 7, & 8. From building simple circuits to working with Arduino, a powerful and easy-to-use open source prototyping platform, students will learn through active engagement as they explore concepts in electricity & magnetism, computer science, and robotics.

Mobile App Development

SPONSOR: University of Massachusetts Dartmouth

WHERE: UMass Dartmouth College of Engineering

WHEN: August 7 – 11, 9:00 a.m. – 4:00 p.m.

WHO: Students ages 11-14

COST: \$150.00

CONTACT: swe@umassd.edu

WEBSITE: <http://www.umassd.edu/engineering/appcamp/>

WHAT: Campers will engage in developing new applications using App Inventor – an open-source visual, drag-and-drop, web-based tool for building mobile applications. Campers will be able to create user-interfaces using the drag-and-drop interface. The camp will begin with basic introduction to the coding and user interface and progress towards creating real applications for Android devices. This introduction to coding will help develop problem-solving and critical thinking skills.

Science Investigative Team

SPONSOR: Massasoit Community College

WHERE: Massasoit Community College, Canton Campus

WHO: Middle School students (grades 6 - 8)

WHEN: July 31 – August 11, 9:00 a.m. - 2 p.m.

COST: \$347

CONTACT: Shannon Skelly, (508) 588-9100 x1656 sskelly@massasoit.mass.edu

WEBSITE: <http://www.massasoit.edu/science4kids>

WHAT: Students will investigate the world around them through the eye of an engineer using science and math. Test materials to determine their characteristics then use what you learn to create your own unique design. Then we'll put your design to the test to see how it works. We'll explore a variety of topics that are fun and interesting, such as ecology, health and the body, physics and the environment. Let's work together with team games and eye opening hands on activities. Students will need to bring a snack and lunch.

Summer Science Academy

SPONSOR: The Center for the Advancement of STEM Education at Bridgewater State University

WHERE: Bridgewater State University's Main Campus

WHEN: Three separate one-week sessions, July 10-14; July 17-21 and July 24-28. Grades 6-8 program hours are 8:30 AM -4:00 PM. Grades 9-12 program hours are 9:00 AM -4:30 PM

WHO: Students entering grades 6-12 in the fall of 2017.

COST: \$400 -\$490 per student per week (does not include lunch or transportation)

CONTACT: Maura Whittemore, (508) 531-2575 or mwhittemore@bridgew.edu

WEBSITE: <http://microsites.bridgew.edu/case/summer-science-programs>

WHAT: The Summer Science Academy offers one-week science classes for students entering grades 6-12 in the fall of 2017. This unique program allows students to work as scientists and is designed to inspire students about science while providing them with the foundations necessary for further scientific exploration. Summer Science Academy students are immersed in science courses and conduct hands-on investigations in their selected class. Students in classes for grades 6-8 will also participate in extracurricular science activities. All classes focus on the importance of science communication as students lead presentations on the last day of class.

- ***Enduring Everest: An Engineering Challenge*** (Entering grades 6-8) – Bridgewater Campus (July 10-14)
On top of the world! Imagine yourself as a climber preparing to summit Mt. Everest. What kind of obstacles will you face? How will you overcome them and survive this journey? During this weeklong program, students will design materials necessary to overcome the challenges of conquering the mountain. Hypothermia, carrying the necessary supplies to camps, and altitude sickness stand in the way. It is up to you to use your creativity and problem solving skills in order to achieve this ambitious goal to summit Everest and experience the beauty and wonder of standing on top of the world.
- ***Shipwrecked: Exploring the STEM of Maritime Archaeology*** (Entering grades 6-8) – Bridgewater Campus (July 17-21)
Come join us where history meets science at the water's edge! Ever wonder what causes shipwrecks, and how scientists explore, study, and map them and other artifacts under water? Now you can find out! This program teaches the concepts, methods, and technology used in the field of maritime archaeology -- and applies them to real-world, hands-on experiences like documenting an actual shipwreck!
Please note that students access shipwrecks from the shore and will be in water no deeper than 2-3 feet. All students will wear waders provided by the program. Outdoor activities are dependent on weather and conditions.
- ***Forensics Institute of Bridgewater*** (Entering grades 6-8) – Bridgewater Campus (July 24-28)
As a new employee at the Forensics Institute of Bridgewater (FIB), you expect your intensive training on crime scene investigations to be exciting, but you never thought it would be THIS exciting. While training on the various crime lab biotechnology techniques, a live case is delivered and F.I.B. needs YOU to help determine what happened!
Have you ever watched Crime Scene Investigators and wondered what really happens to the evidence at a crime scene and how that evidence is used to solve the crime? Join us in a week-long adventure into the life of a crime scene analyst! Working with Senior Scientists, you will learn how to collect and analyze fingerprints from a simulated crime scene, perform blood type analysis and get closer to solving the mystery using DNA fingerprinting. At the end of the week, you will present your findings as an expert crime scene technician to our "jury" so they can determine if your lab analysis and scientific evidence is sufficient for the case to go to trial.

- So you want to be a what? Exploring careers in medical sciences** (Entering grades 9-12) – Bridgewater Campus (July 10-14)

Everyone has heard of a medical doctor, but what about a laboratory animal technician? Pathologist? Physical therapist? Histotechnician? Are you interested in careers in the medical field but not even sure what some of these job titles mean or the type and length of school required for each? In this weeklong course, students will have the opportunity to explore various career options in the medical field. Activities will include solving medical mysteries, a blood laboratory, and heart dissection. Additionally, students will hear from a variety of practitioners in different fields of biomedical science. This program is perfect for anyone interested in medical practice or research and will be sure to set you apart when it is time to apply for college.
- Biotech Career Rotations I: Real-world Techniques to Answer Real-world Problems** (Entering Grades 9–12) – Bridgewater Campus (July 17 -21)

During this week-long program, students will have the opportunity to explore biotechnology procedures used in industry and research and their real world applications. Activities will include making bacteria glow in the dark with green fluorescent protein (GFP), determining if “Doritos” are genetically modified (GMO) by using PCR (polymerase chain reaction) to assay for a GMO marker and performing gel electrophoresis of DNA STRs (short tandem repeats), a process commonly used in forensics for identification of individuals. This program is perfect for anyone interested in biology and biotechnology and will be sure to set you apart when it is time to apply for college. *Please note, if you have previously taken the course, "Biotech Career Rotations II," you may still enroll in Biotech Career Rotations I.*
- Biotech Career Rotations II: Real-world Techniques to Answer Real-world Problems** (Entering Grades 9–12) – Bridgewater Campus (July 24-28)

In this intensive, week-long course, students will explore how biotechnology impacts our lives across a wide range of disciplines. Students will learn about and conduct experiments routinely used in food and water safety labs to identify bacterial contamination, design and implement assays to identify genetically modified foods and conduct experiments used in hospital laboratories to test for disease and quantify the viral load of a patient. During these exercises students will gain not only theory, but have the opportunity to carry out such advanced molecular techniques as Polymerase Chain Reaction (PCR), Gel Electrophoresis, Cloning and Enzyme Linked Immunosorbent Assays (ELISA). This program is perfect for anyone interested in biology and biotechnology and will set you apart from your peers when it is time to apply for college. *Students do NOT need to take Biotech I prior to enrolling in Biotech II.*

Summer Science Academy – Enduring Everest: An Engineering Challenge

SPONSOR: The Center for the Advancement of STEM Education at Bridgewater State University

WHERE: Bridgewater State University’s Attleboro Campus

WHEN: July 17-21, 8:30 AM -2:30 PM.

WHO: Students entering grades 6-8 in the fall of 2017.

COST: \$350 per student per week (does not include lunch or transportation)

CONTACT: Cathleen DeSimone, (508) 531-3896 or c3desimone@bridgew.edu

WEBSITE: <https://microsites.bridgew.edu/case/case-attleboro-science-programs>

WHAT: On top of the world! Imagine yourself as a climber preparing to summit Mt. Everest. What kind of obstacles will you face? How will you overcome them and survive this journey? During this weeklong program, students will design materials necessary to overcome the challenges of conquering the mountain. Hypothermia, carrying the necessary supplies to camps, and altitude sickness stand in the way. It is up to you to use your creativity and problem solving skills in order to achieve this ambitious goal to summit Everest and experience the beauty and wonder of standing on top of the world.