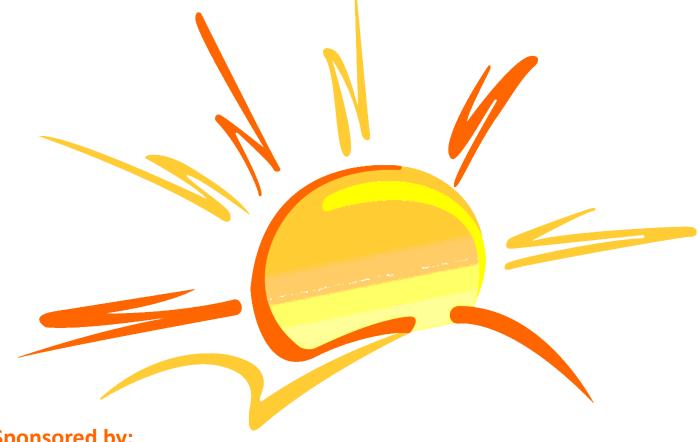
## **Summer of Innovation 2018**

# Course Guide



Sponsored by:























## What is the Summer of Innovation?

Several organizations from across the Southern Tier have united to offer unique learning opportunities for children and young adults during the summer months. These organizations have a common goal of extending the traditional school year into a third summer semester. Our offerings have another purpose as well – to provide students with STEM (Science, Technology, Engineering and Mathematics) skills that are essential to their success in the future.

## Partnering organizations include:

- Alfred University www.alfred.edu
- Corning Community College www.corning-cc.edu/workforce
- The First Tee Corning www.thefirstteecorning.org
- GST BOCES www.gstboces.org
- MST Connect
- Notre Dame High School <u>www.notredamehighschool.com</u>
- The Science & Discovery Center www.sciencediscoverycenter.org
- Tanglewood Nature Center and Museum <u>www.tanglewoodnaturecenter.com</u>
- Wings of Eagles Discovery Center www.wingsofeagles.com

## How do I register my child for these courses?

To register your child for any of the courses listed in this brochure, please go to <u>www.gstboces.org</u> and click on the link to the agency offering the course your child is interested in. From there, you will be able to access the registration information you need.

Enrollment is limited; please register early!

When registering for courses, please use the grade your child will enter in the fall unless otherwise indicated.

## What is the cost of these programs?

The cost of these academies varies. Please see the course description for information on price.

Join us for summer fun and learning at a variety of sites including:

# Summer Academic Enrichment Programs @Alfred University

1 Saxon Drive, Alfred

To apply, complete the online application found on the web page indicated for each camp. Applications submitted after the deadline dates will be accepted if space is available. If applying after the deadline, please call 607-871-2612 to inquire about space availability.

## Art: Portfolio Preparation for College Bound Artists (Grades 9-12) Two Options:

Week 1: July 1-6; Cost: \$910 residential, \$810 commuter Week 2: July 8-13; Cost: \$910 residential, \$810 commuter

This co-ed, overnight art camp is an intensive program establishing a body of work in portfolio preparation. The goal of the program is to expose campers to a variety of media, allow for exploration of personal art themes and provide a sound foundation in the vocabulary of art and art-related pursuits. Campers will develop personal goals and projects to accomplish throughout the camp utilizing the plethora of materials available. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/art.cfm">www.alfred.edu/summer/camps/art.cfm</a>

## **Astronomy Camp (Grades 11-12)**

July 22-26; Cost: \$910 residential, \$810 commuter

This popular residential camp is for students who love astronomy and want to spend time learning more about this fascinating subject with others who share their passion. Campers enjoy a mix of night and daytime classes and activities involving extensive use of the telescopes and electronics at AU's Stull Observatory. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/astronomy.cfm">www.alfred.edu/summer/camps/astronomy.cfm</a>

## **Athletic Performance Enhancement (Grades 9-12)**

July 22-27; Cost: \$910 residential, \$810 commuter

This camp is designed for anyone interested in exercise and performance, from the competitive athletes to fitness-minded students. Campers will expand their knowledge base in the latest exercise, strength training, nutrition, performance enhancement and personal-injury prevention/treatment techniques. This instructive and transforming week-long camp is designed to provide the camper with a knowledge base to improve overall athletic performance. Concepts in fitness, nutrition, strength training and conditioning and performance enhancement will be addressed through use of the latest evidence-based techniques. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/athletic-performance-enhancement.cfm">www.alfred.edu/summer/camps/athletic-performance-enhancement.cfm</a>.

## **Ceramic & Glass Engineering Camp (Grades 10-12)**

#### June 24-28; Cost: \$910 residential, \$810 commuter

Find out all about the exciting field of ceramic and glass engineering! This camp offers dynamic hands-on lab experiences in ceramic processing, tape casting, glass melting and press forming. Each student will cast a glass piece to take home. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="www.alfred.edu/summer/camps/science.cfm">www.alfred.edu/summer/camps/science.cfm</a>

## **Computer Engineering Camp (Ages 12-17)**

#### July 8-12; Cost: \$910 residential, \$810 commuter

Learn about video game design, microcontrollers, computer languages, web page design, software applications, simple robotics and more! This camp offers creative and practical programming experiences for both basic and advanced students. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/computer-engr.cfm">www.alfred.edu/summer/camps/computer-engr.cfm</a>

#### **Creative Writing Camp (Grades 10-12)**

#### June 24-28; Cost: \$910 residential, \$810 commuter

This dynamic program is for students who love to write and wish to hone their writing skills. This camp provides an introduction to a variety of genres: poetry, short fiction, creative nonfiction and drama. Students will participate in writing-intensive exercises designed to address the elements of craft: voice, character, image, scene and setting. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/writing.cfm">www.alfred.edu/summer/camps/writing.cfm</a>

## **Equine Business Institute (Grades 9-12)**

#### July 15-19; Cost: \$775 residential, \$675 commuter

This newly-established summer opportunity is for students who wish to learn more about the equine business and how to be successful in running an equestrian center. This institute is designed to provide an excellent opportunity to learn more about the horse industry as a business and all concepts that entails, from riding to caring for the horses and will end with a full day at a local county fair gaining hands-on experience in running a horse show. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting new camp and how to apply please visit: <a href="https://www.alfred.edu/summer/camps/equine-business.cfm">www.alfred.edu/summer/camps/equine-business.cfm</a>

### **Exploration of Expanded Media (Grades 9-12)**

Four opportunities: Cost: \$910 residential, \$810 commuter

Sound – June 24-28

Video - July 1-6

Traditional & Experimental Print Media – June 24-28

**Sound – July 15-20** 

This program consists of four separate camps that will parallel college classes. Though these are intended for high school students, they are day-long intensive workshops and will be immersive for the full five days that they run. Group critiques and individual meetings will further the development of your concepts and ideas. As a component part of the class, you'll meet artists who are working in the various media that you are interested in. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting new camp and how to apply please visit: <a href="www.alfred.edu/summer/camps/digital-expanded-media.cfm">www.alfred.edu/summer/camps/digital-expanded-media.cfm</a>

## **Robotics Engineering Camp (Grades 10-12)**

June 24-28, 2018; Cost: \$910 residential, \$810 commuter

Build a robot this summer! This camp, based on the VEX Robotics System, offers a dynamic platform for learning about areas rich with career opportunities spanning science, technology, engineering and math. Student teams will assemble robots and program them to perform various functions and to compete in a classroom football/soccer game on the last day of camp. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="www.alfred.edu/summer/camps/robotics.cfm">www.alfred.edu/summer/camps/robotics.cfm</a>

### Theatre (Grades 10-12)

#### June 24-July 6 (two-week camp); Cost: \$1,995 residential, \$1,795 commuter

Summer Theatre at Alfred University provides a great opportunity for students to create, experience and develop perspectives and skills in theatre through full group sessions and with a good deal of individual attention, training and experience in theatre from our distinguished faculty. Our unique blend of broad choices and training in specific areas (acting, improvisation, character development, staging, voice production, design and technical theatre including state managing, scenery, costume and lighting, to name a few) leads to many energetic classes and much individual growth. Students may also elect to receive two college credits at an additional cost. Application deadline is May 1, but registration will continue until the camp is full. For more information about this exciting camp and how to apply, please visit: <a href="https://www.alfred.edu/summer/camps/theater.cfm">www.alfred.edu/summer/camps/theater.cfm</a>

#### **Art Day Camps**

**July 23-27** 

Morning – Grades K-6, Cost: \$150 Afternoon – Grades 7-12, Cost: \$170

The morning camp is for students who wish to participate in a fun, dynamic summer art experience based on Super Heroes. The afternoon camp is for middle and high school students wishing to explore art at a deeper level. Both camps are held on the University campus in the Brick BAFA Art Studio. Enrollment deadline is July 1. We offer sibling discouts. For further information, please visit: <a href="https://www.alfred.edu/summer/camps/art-day.cfm">www.alfred.edu/summer/camps/art-day.cfm</a>

## **Engineering Day Camp (Grades 1-8)**

July 9-12; Cost: \$165

#### 8:30 to 11:30 AM for Grades 1-3 / 12:30 to 3:30 PM for Grades 4-8

Top quality instruction and learning; classes feature science, technology, engineering and mathematics concepts with skills of critical thinking, problem solving, collaboration, agility and adaptability, curiosity and imagination. Students use unique LEGO® kits to creatively build and modify machines applying basic engineering principles. Throughout the camp, they will learn a variety of concepts and apply their acquired knowledge about gearing and gear ratios, simple machines, problem solving and communication skills. This challenges students to incorporate the traits of an engineer in a classroom setting. This camp Includes a take-home project students can keep! Enrollment deadline is July 1. For further information, please visit <a href="www.alfred.edu/summer/camps/engineering-day.cfm">www.alfred.edu/summer/camps/engineering-day.cfm</a>

## Mural Art – Imagination at-Large Day Camp (Grades 2-9) July 16-20; Monday-Friday, 9:00 AM-4:30 PM; Cost: \$300

This camp provides students the opportunity to work together on the completion of a mural by the end of the week. A mural is any piece of large-scale artwork, painted or applied directly on a large surface. The styles can vary from abstract to "Trompe L'Oeil" (a French term for "fool" or "trick the eye"). At this camp, students will be introduced to the steps of artistic exploration, teamwork and decision making as together they are walked through this creative process called "Mural Art." From brainstorming to final composition, young artists will be partaking in creative sessions of focus, goal setting, decision making and self-expression, all of which have been directly linked to empowering youth with self-esteem, self-awareness and stress relief, in a safe, social and fun environment. Enrollment deadline is July 9. For further information, please visit: <a href="www.alfred.edu/summer/camps/mural-art-day.cfm">www.alfred.edu/summer/camps/mural-art-day.cfm</a>

We also offer residential sports camps in Equestrian (English and Western style) and Swimming, and day camps in Basketball, Equestrian, Tennis, Track and Field. Please visit www.alfred.edu/summer/ for further information.

## **@Corning Community College**

1 Academic Drive, Corning



To apply, complete the online application on the website: <a href="www.corning-cc.edu/workforce">www.corning-cc.edu/workforce</a>. Call 607-936-5501 or email <a href="mailto:ilearn@corning-cc.edu">ilearn@corning-cc.edu</a> with questions.

### **Art & Science of Cooking (Grades 7-10)**

#### July 9-13, 8:00 AM- 4:00 PM, Commons Building

This week-long course will engage students to expand their palate through tasting and working with a variety of different fresh ingredients, including vegetables from the CCC campus garden. A strong focus on safety and ServSafe® principles will be the backbone of this course. Learn the science behind cooking through various demonstrations and hands-on labs. Students will gain a basic knowledge and understanding of the use of kitchen equipment and how to use it properly and safely. Students will learn the following cooking methods: sauteing, braising, baking, roasting, pan frying and steaming.

On Friday afternoon, the program will end with an "Iron Chef-style" competition in which the students will create their own unique dishes, based on what they learned throughout the week, which will be judged.

#### **Get Ready to Drive! (Grades 7-10)**

#### July 16-20, 8:00 AM- 4:00 PM, Airport Corporate Park

Learn the basics you will need to start driving. Experience the following: disassemble/measure engine, construct a functioning electrical circuit, change/rotate tires; solder/repair wires, change headlights/tail lights, perform safety and brake checks, perform fluid checks, use Scan Tools, interact with information system (Shopkey/ Alldata), repair (using various methods)/prep/paint a dented body panel, custom airbrushing, beginning welding and replace/align fender.

Course size is limited to 12 students. Students should wear long pants and closed toe shoes (no shorts, sandals). Students should pack a bag lunch; water and snacks will be provided.

### Full STEAHM Ahead! (Girls, Grades 6-7)

#### July 30-August 3, 8:00 AM-4:00 PM, Commons Building

The Full STEAHM Ahead Summer Workshop is a week-long program for middle school girls that focuses on Science, Technology, Engineering, Arts, Health and Math education. Approximately 24 middle school girls from Chemung, Schuyler and Steuben counties will be selected based on essay applications to participate in this low-cost workshop. Girls will: learn how to code with Ozobots, creative coding robots; explore the night sky at CCC's Planetarium; perform in a drama production; develop math theory using supplies like pine cones; paint rocks to learn math sequences; learn to meditate and practice yoga for stress release; develop an engineering project that they can wear home and lots more. Also hear from women working locally in STEM careers to design your own career.

## The First Tee of Corning

@Corning Country Club, 2501 Country Club Drive, Corning



## The STEM of Golf (Ages 13 and up)

#### Thursdays June 28, July 12, 19, 26 and August 2, 6:00-7:30 PM

Develop an understanding of how science, technology, engineering and math are involved in the game of golf. Golf is not only an athletic game, it's also mental. Developing an understanding of the engineering that goes into club design and function, the technologies used by all levels of players, the math and science concepts behind golf course design and how the mechanics of your body work will help improve your game. This opportunity is available to any youth 13 and older who is looking to experience the unique game of golf. All classes will be held on the golf course, include skills instruction and explore careers in golf. All supplies will be provided, including golf clubs, if needed.

**Cost:** \$95

Register: <u>www.thefirstteecorning.org</u>

## @GST BOCES Bush Education Center

459 Philo Road, Elmira

Please note: There is no charge for courses at the Bush Education Center.

## **Animal Science (Grades 7-12)**

July 16-20 or July 23-27, 8:00 AM-12:00 PM

The Animal Science summer academy will give students hands-on animal care and handling experience. Each day will include care of classroom animals including guinea pigs, a rabbit, dogs, a cat, a hedgehog, a ferret and various reptiles. Students will clean enclosures, prepare daily diets, provide enrichment activities and learn how to groom and monitor the health of small animals. Throughout the week, students will use positive, reward-based training methods to train one of the classroom animals to perform a behavior.

## Conservation: The Outdoor Classroom (Grades 7-12)

August 6-10 or August 20-24, 8:00 AM-12:00 PM

If you're the outdoorsy, active type, this academy is for you! Throughout the week, you'll spend time in the great outdoor classroom learning to identify the trees and wildlife of New York State. We'll also look at pond life and test soil and water. You will take home a wildlife project that you construct and will enjoy some time fishing in our many ponds.

## Cosmetology: Cosmolicious 101 (Grades 7-12) June 25-29, 9:00 AM-11:30 AM or 12:00-2:30 PM

Do you enjoy making people feel better about themselves? Come to the Cosmetology summer academy at the Bush Campus. Each student will learn the importance of hygiene and sanitation, braiding, manicuring, pedicuring and plain facials. Summer of Innovation students will work with a senior student from the Bush Cosmetology program.

### **Culinary Arts: Foods of the World (Grades 7-12)**

June 25-29, 9:00-11:00 AM

Take a food tour of the world! We'll learn about various cuisines from different parts of the world. By the end of the week, you will have made dishes from Italy, Asia, France, Greece and the Middle East.

## Woodworking/Mass Production: From Forest to Factory (Grades 7-12)

June 25-29, 8:00 AM-12:00 PM

If you like working with wood, this course is for you! You'll learn how lumber is processed from forest to stock as well as how to plan, layout, measure, cut, assemble and finish your own woodworking project. In addition, you'll learn how to safely and properly handle all sorts of power equipment. The week will close with a field trip to a local sawmill.

## **@GST BOCES Coopers Education Center**

9579 Vocational Drive, Painted Post

Please note: There is no charge for courses at the Coopers Education Center.

## Auto Body: Intro to Collision Repair & Refinishing (Grades 7-12) June 25-29, 8:30-11:30 AM

The collision repair industry is evolving at a faster rate than ever before and technological advancements have changed the way we view the industry. This change is paving the way for the next generation of technicians to be able to work on the rolling computers we drive today. During this week, students will learn some of the basics of collision repair, including dent repair, MIG/MAG welding, plastic repair and refinishing.

## Auto Body: Custom Paint & Graphics (Grades 7-12)

June 25-29, 12:30-3:30 PM

Students will learn custom paint techniques used in the industry. They will achieve this using airbrushes, paint spray guns, stencils and free-hand techniques. They will layout and complete a pre-determined project. Then, they will be able to come up with their own design for a panel. Students will also get to visit a local racetrack for an exciting look behind the scenes. If time permits, we will learn about the exciting technique of water transfer printing, also known as hydrographics.

#### **Auto Tech: Let's Go Racing (Grades 7-12)**

June 25-28, 9:00 AM-2:30 PM

If you're an auto racing fan, this class is for you. You'll begin the week by creating a team with your classmates and participating in a pit row competition. You'll learn to operate a lift and tire machines, identify fluids, check and adjust air pressure and build a V/C Racer. At the end of the week, we'll visit a local raceway.

## **Bench Worx (Grades 7-12)**

July 9-13, 8:00 AM-1:00 PM

Bench Worx uses both classroom and hands-on instruction to introduce the fun of woodworking. Follow lumber's path from the woods to the saw mill, lumber yard and wood shop. We'll travel to a local saw mill and lumber yard and learn how to use hand and power tools safely. Students will choose a project to complete and take home.

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### **Cosmetology: Be Our Guest (Grades 7-12)**

#### June 25-29, 8:00 AM-12:00 PM

This year's academy is filled with exciting activities. Each student will learn the dynamics of thermal curling, updos, braids, make-up application and manicures. Students will practice these procedures throughout the week on a mannequin. On Friday, invite your mom or another special person to "Be Our Guest" for a day of pampering. During the week, we will visit two salons on Market Street in Corning for students to see the dynamics of a successful salon. At the end of the academy, each student will receive a certificate of completion and an award ribbon to take home.

## Criminal Justice: Crime Scene Investigation (Grades 7-12) June 25-29, 9:00 AM-12:00 PM

With today's explosion of TV programs and media coverage of the latest advancements in crime scene investigation, young people are fascinated with the work of a forensics scientist. This course will give hands-on experiences to students who wish to learn more about Criminal Justice and what it takes to solve a crime. Students will learn about a wide variety of law enforcement careers and take a field trip to the Steuben County Jail and 911 Center.

## **Culinary Arts: Cake Decorating (Grades 7-12)**

#### June 25-27, 9:00-11:30 AM

Do you enjoy cake decorating? Did you know you can make anything from a simple cake? Do you think there is nothing better than the taste of a mouth-watering cake with beautiful butter cream icing? If so, you will want to be a part of this course. You'll learn to identify the ingredients of a cake and the role they play. Finally, create the cake of your choice and decorate it as you wish.

## Digital Media Arts: Creative Ventures (Grades 7-12) July 9-12. 8:30 AM-2:00 PM

If you love art, this class is for you! You'll practice computer graphics (Adobe Photoshop), photography, video and vinyl graphics. You will create photo composites such as a "Hybrid/New Animal" using two different images, a vinyl transfer for a T-shirt and a photo cup. You also will put yourself into another world using a green screen effect. Please bring a brown-bag lunch each day.

## New Visions Medical: The Helping Hands in Healthcare (Grades 9-11)

#### June 25-29 or July 9-13, 9:00 AM-12:00 PM

Learn first-hand how rewarding it can be to help people when they are ill. First, we'll learn some healthcare basics, including infection control, HIPAA, professionalism and communication. Then, we'll take a complete tour of Corning Hospital to learn what each department does. Finally, students will be ready to visit patients and provide ice water, drinks and snacks; offer magazines and reading material; and communicate with patients, families and staff.

## **@GST BOCES Wildwood Education Center**

1126 Bald Hill Road, Hornell

Please note: There is no charge for courses at the Wildwood Education Center.

## Auto Technology: Lawn Mower Dragster (Grades 7-12) July 9-13. 9:00 AM- 12:00 PM

Students will learn how to alter a riding lawn mower for speed and performance, and Grandpa's lawn mower will never be the same! Students will learn basic steering, suspension, internal combustion diagnosing, operation and fabrication skills.

## **Auto Technology: Pit Crew Challenge (Grades 7-12)**

July 16-20, 9:00 AM-12:00 PM

Have you ever wondered what it is like to be in a pit crew? Come learn the tools and skills used to keep a car on the track. This class includes hands-on and classroom instruction and ends with a field trip to a local racetrack.

### **Banking and Finance (Grades 7-12)**

August 6-9, 9:00 AM-12:00 PM

Take a peek inside the world of banking and finance. You'll learn about banking operations, loans and finance and tour two local banks. You'll also learn about personal finance and how to maintain a budget.

## **CISCO Networking Academy (Grades 7-12)**

June 25-29 or July 2-6, 9:00 AM- 12:00 PM

If you're fascinated by computers, this is academy is for you. You'll identify the basic components of a PC and have a chance to take one apart. Then, you'll learn how to put it back together again and build a PC from scratch. We'll also learn how to network computers.

## Criminal Justice: Crime Scene Investigation (Grades 7-12) June 25-29, 9:00 AM-12:00 PM

Through hands-on activities, role playing and brief lectures, we'll learn how law enforcement collects evidence at a crime scene. We'll find out why photography is such a vital part of the criminal trial process and learn how to process crime scene photography. In addition, you'll also learn about bloodstain splatter, the importance of DNA to a criminal investigation, how to make a plaster mold from a foot impression, the classifications of fingerprints and how to dust for fingerprints at a crime scene, how to collect and analyze trace evidences, how to analyze ballistics and the scientific principles of projectiles and how a drug dog can be used at a crime scene.

## Culinary Arts: Making Lots of Dough (Grades 7-12) June 25-29, 9:00 AM-12:00 PM

If you can't resist freshly baked bread, why not learn to make your own? We'll make and eat several types of bread and learn the basics of kitchen safety and sanitation in the process.

## Digital Media Arts: Trick Photography and Special Effects (Grades 7-12)

June 25-29, 9:00 AM-12:00 PM

Learn the basic techniques of photography, then use Photoshop to create amazing trick photos. You'll also try your hand at creating a special effects video using Hollywood green screen techniques.

### **Entrepreneurship (Grades 7-12)**

July 9-12, 9:00 AM-12:00 PM

Are you interested in starting your own business? Find out how other young entrepreneurs have found success. You'll develop your own business plan and hear from guest speakers who own their own businesses.

## Welding: Fabrication and Welding Fun (Grades 7-12)

June 25-29, 9:00 AM-12:00 PM

Learn to weld! This course will introduce you to safety in a welding/fabrication shop and how to use the tools of the trade. Then, learn to weld using a SMAW (stick) process and finishing off welding with GMAW (MIG).

Online registration information can be found at <a href="www.gstboces.org">www.gstboces.org</a>. Please click on the Summer of Innovation banner at the top of the page. For more information, please contact Terri Walczak at (607) 281-3152.

## @Notre Dame High School

1400 Maple Avenue, Elmira

All academies at Notre Dame are \$100 per child, per academy. Registration fees are non-refundable and must be paid at the time of registration. Please note: "Grade" is the grade level that the student will be entering in the fall of 2018. For more information or to register, go to: <a href="www.notredamehighschool.com">www.notredamehighschool.com</a> and click on Summer Camps under "Quick Links". Students who sign up for a morning and afternoon session during the same week are invited to pack a brown-bag lunch and may eat in the cafeteria in between sessions.

## **STEM Magic (Grades 4-6)**

July 16-20, 8:00-11:30 AM

Students will have the opportunity to live the life of a mad scientist for the week. Students will perform a number of experiments while learning the basic chemical principles and concepts behind each reaction. Dazzle your family members as you take home the "recipes" for each day's reactions.

Fee: \$100

## **Codes & Secret Messages (Grades 4-6)**

#### July 16-20, 12:00-3:30 PM

Learn how to communicate and decipher many different types of codes and secret messages. Learn about thousands of years of code making and code breaking and see how it has changed the course of history. Stump your friends as you create your own ciphers and try to break theirs. Put your skills to the test as you work to solve a coded scavenger hunt.

Fee: \$100

## **Summer Studio in Art (Grades 5-8)**

#### July 23-27, 8:00-11:30 AM

Experience art like an artist does. Draw from still life set ups, sketch figures of live models, paint landscapes in the open air, and sculpt a self-portrait out of clay. End the week with an exhibition of your masterpieces.

Fee: \$100

## Click It Up a Notch (Grades 5-8)

#### July 23-27, 12:00-3:30 PM

Come have fun exploring your creative potential with a camera! Through discussion and hands on practice, students will learn the fundamentals of photography, composition and light. Students will be given daily assignments and will be encouraged to voice opinions on each others' work and learn how to offer an effective critique. No prior photography knowledge required. The week will end with an exhibit of student photos.

Fee: \$100

## What's Cooking? (Grades 6-12)

#### August 6-10, 8:00-11:30 AM

Young chefs will have the opportunity to learn how to plan and create a wide range of meals that can be prepared for a crowd of family or friends. Each day, we will focus on a different theme, such as pizza party, brunch favorites or picnic lunch, during which campers can hone their skills learning recipes, techniques and tricks that are meant to bring home to share. The students will work in a professional kitchen with the tools of the trade, measuring, timing different components of the meals and working together to plan and produce an entire meal each day. After enjoying our creations, we will work to put together a meal plan and a grocery list for the next day. Emphasis will be placed on a healthy balance of food, as well as preparations for those with allergies, vegetarians and vegans will be discussed. On our last day, the junior chefs will be asked to bring in one of their favorite recipes to share, create and enjoy with invited guests as a finale.

Fee: \$100

## La Cocina Hispana! (Grades 6-12)

#### August 6-10, 12:00 -3:30 PM

Students will utilize project-based learning skills to create meals from five different Spanish-speaking countries. Activities will be hands-on and cooperative using recipes, tools and cooking methods to produce complete meals. Participants will have to work together to complete tasks, navigating measurement, timing and proper handling of food to produce several courses of an authentic meal. The week will culminate in a tasting event for parents and guardians.

Fee: \$100

## **Science & Discovery Center**

- To register please go to our website, <u>www.sciencediscoverycenter.org</u>.
   Registration is done on a first-come, first-served basis.
- Camp assistance is available for financially eligible families. Campership applications are available online.
- "Grade" refers to the grade your child will enter in September 2018.
- Dates, times, location and cost of camps vary. Please check all information prior to registration.

### **Inventions (Grades 5-7)**

**@Corning Community College** 

June 25-29, 8:30 AM-3:00 PM

Bring your lunch and spend the day putting your imagination and creativity to work: we'll supply the old computers, clocks, machines and tools – you take them apart and invent something new!

**Cost: \$125** 

### Jr. Science Explorers (Grades 1-2)

**@Spencer Crest Nature Center** 

July 9-13, 8:30-11:30 AM

Discover a new science topic every day! Become an engineer to design and build domes and towers. Explore cool reactions with everyday ingredients on Chemistry Day. Hike the trails down to the pond to observe the plants, insects and animals on Outdoor Biology Day. Build things that fly, and have some fun experimenting with bubbles!

Cost: \$100

#### **Science Explorers (Grades 3-5)**

**@Spencer Crest Nature Center** 

July 23-28, 8:30 AM-12:30 PM

Explore a different science topic each day! Hike trails and explore the outside world on Nature and Environment Day. Build gliders and helicopters on Flying Things Day. Use everyday ingredients and materials to experiment on Chemistry Day. Build devices to see how sun and wind power can be used. Make lots of noise on Crazy Sound Day!

Cost: \$100

## **Cooking (Grades 5-8)**

**@Corning Painted Post Middle School** 

July 30-August 3, 8:00 AM-12:30 PM

Prepare and taste recipes for a different meal or snack each day. Get creative with changing up traditional dishes, like mac and cheese. Spend a day cooking with a professional chef from Wegmans.

Cost: \$125

### **Photography (Grades 4-7)**

#### **@Corning Community College**

#### July 30-August 3, 8:30 AM-12:30 PM

Learn about simple black and white photography, develop in a darkroom and take pictures with a pinhole camera that you made! Make photograms and Sun Prints using natural lighting to make cool images. Learn about the science and art of perspective – how artists learned to draw before photography was invented. Then, let's have some fun with digital photography and play with the images we make with special photographic effects. (And take all your prints home!)

Cost: \$100

## **Forensics (Grades 5-8)**

#### **@Spencer Crest Nature Center**

August 6-10, 8:30 AM-12:30 PM

"Who Done It"? Each day learn a different scientific technique that is used by real forensic experts to solve cases, such as; fingerprinting, DNA, chromatography, sketch artistry and collecting evidence. Meet and talk to law enforcement professionals. On the last day, work as a team and use all of your skills to examine a mock crime scene, then present your evidence in a mock trial.

Cost: \$100

### **Stop Motion Animation (Grades 4-7)**

**@Corning Community College** 

August 6-10, 8:30 AM-12:30 PM

Create stop motion animation on a computer, and then make your own movie that you can take home on a DVD!

Cost: \$100

#### Jr. Science Explorers (Grades 1-2)

**@Spencer Crest Nature Center** 

August 13-17, 8:30-11:30 AM

Discover a new science topic every day! Become an engineer to design and build domes and towers. Explore cool reactions with everyday ingredients on Chemistry Day. Hike the trails down to the pond to observe the plants, insects and animals on Botany/Biology Day. Build things that fly, and have some fun experimenting with bubbles!

Cost: \$100

## @Tanglewood Nature Center

443 Coleman Avenue, Elmira



An opportunity to play, explore and discover the great outdoors.

Visit <a href="https://www.tanglewoodnaturecenter.com">www.tanglewoodnaturecenter.com</a> for pricing and registration information.

Extended hours are available for an extra fee.

## **Zookeepers Camp (Grades K-2)**

#### June 25-29, 10:00 AM-3:00 PM

- Dissect owl pellets and rebuild the skeletons of their prey.
- Roll logs and pull apart to discover decomposers.
- Feed our animals gourmet meals of fruit, rats, bugs and build jungle gyms and toys for our animals.
- Personally meet each major animal group and care for our critters from tooth to toe!

## **Mad Scientists Camp (Grades 3-5)**

#### June 25-29, 10:00 AM-3:00 PM

- Turn a chicken bone to rubber.
- Defy gravity with water in wacky experiments.
- Send a balloon into the stratosphere using only the power of the sun.
- Explode, grow, disappear and slime all kinds of things with experiments!

## Week 2 - No camp during the holiday week July 2-6

### Fishing Camp (Grades K-2)

#### July 9-13, 10:00 AM-3:00 PM

- Basics of fishing, including casting, knot tying, safety and more.
- Practice casting and perfect your fly-tying.
- Dig bait for different species of fish and make your very own pole.
- Watch a pro show you how to gut, fillet and clean a fish and take home recipes for future fishing!

### Wilderness Survival Camp (Grades 3-5)

#### July 9-13, 10:00 AM-3:00 PM

- Start off easy with map and compass reading, but by the end of the week, kids will read a tree to find south.
- Build and insulate a shelter with no tools.
- Learn where to find edible fruits, while tracking and catching (and releasing) wildlife with our own homemade traps.
- Finish the week with fire building and preparing a special treat in the woods!

#### **Magical Beasts (Grades K-2)**

#### July 16-20, 10:00 AM-3:00 PM

- Discover all the different magical creatures in habitats like the pond, the sky and the woods mermaids, imps, brownies, gryphons and unicorns.
- Design a chimera that mixes up your favorite adaptations like wings, special powers, talons or webbed feet.
- Learn about the natural world that mimics magic why bogs glow in the dark, the science of fairy rings and more.
- Build a gnome home and imagine how magical creatures coexist with humans.

### Beaks and Talons (Grades 3-5)

#### July 16-20, 10:00 AM-3:00 PM

- Discover your passion for creatures that soar.
- Watch Hank the Hawk fly and prepare a feast for Sophie the Owl.
- Dig deep into the science of how raptors hunt, live and migrate.
- Dissect owl pellets and do a raptor hike!

### **Nature Play (Grades K-2)**

#### July 23-27, 10:00 AM-3:00 PM

- Go home laughing and grass-stained after a day of playing games including the classics and brand new games unique to Tanglewood.
- Sculpt mud pies, make fossil prints and play park rangers.
- Climb trees and peer into cavities to see who nests there.
- Tag, kickball and forts galore!

#### Pioneers to iPads (Grades 3-5)

#### July 23-27, 10:00 AM-3:00 PM

- From ancient hieroglyphs to iPads, play around with science and technology!
- Take tech into the woods using apps on our iPads to take real data for NASA and Cornell's Lab of Ornithology!
- Construct, create and play with simple machines from seed bomb launchers all the way to racing solar-powered cars.

#### **Mad Scientists (Grades K-2)**

#### July 30-August 3, 10:00 AM-3:00 PM

- Turn a chicken bone to rubber.
- Defy gravity with water in wacky experiments.
- Send a balloon into the stratosphere using only the power of the sun.
- Explode, grow, disappear and slime all kinds of things with experiments!

## Fishing Camp (Grades 3-5)

#### July 30-August 3, 10:00 AM-3:00 PM

- Basics of fishing, including casting, knot tying, safety and more.
- Practice casting and perfect your fly-tying.
- Dig bait for different species of fish and make your very own pole.
- Watch a pro show you how to gut, fillet and clean a fish and take home recipes for future fishing!



## Week 7 – No camp during the week of August 6-10

## Scales and Tails (Grades K-2)

#### August 13-17, 10:00 AM-3:00 PM

- Flip over logs to find sneaky salamanders and get your feet wet catching frogs and fish in the ponds.
- Shed your own skin with a funky craft and unravel the color-changing mysteries of chameleons and bearded dragons.
- Create a life-size masterpiece of our biggest animal "Bowie" the Colombian red-tail boa.
- End the week with a reptile race!

## **Zookeepers Camp (Grades 3-5)**

#### August 13-17, 10:00 AM-3:00 PM

- Dissect owl pellets and rebuild the skeletons of their prey.
- Roll logs and pull apart to discover decomposers.
- Feed our animals gourmet meals of fruit, rats, bugs and build jungle gyms and toys for our animals.
- Personally meet each major animal group and care for our critters from tooth to toe!

#### Feathers and Fluff (Grades K-2)

#### August 20-24, 10:00 AM-3:00 PM

- Learn how birds hatch out of eggs and how they grow.
- Make your own binoculars to find birds in the wild.
- Construct a nest like a bird to take home.
- Cuddle some furry animals and take care of our animal friends!

#### **Outdoor Adventure (Grades 3-5)**

#### August 20-24, 10:00 AM-3:00 PM

- Escape a larger-than-life spider web unscathed with your team.
- Build the ultimate eggstra invincible parachute to protect an egg passenger.
- Channel your inner adventurer and build a fort in the woods, spending glorious days in the wild.
- Create toys and enrichment for the animals interspecies play!

#### Nature in a Nutshell (Grades K-5)

#### August 27-31, 10:00 AM-3:00 PM

- Investigate the furthest corners of our trails.
- See the unseen parts of our ponds with microscopes and make your own recycled pond viewer.
- Go fishing and build a fort.
- Make a solitary bee house and save our pollinator friends!

## **@Wings of Eagles Discovery Center**

339 Daniel Zenker Drive, Big Flats



Please note: All Wings of Eagles Discovery Center courses are \$50 per child. A limited number of scholarships are available for children who qualify. Please call 607-738-3054 for more information. To register for courses at the Wings of Eagles, please go to <a href="https://www.wingsofeagles.com">www.wingsofeagles.com</a>.

#### **Grades K-2**

## Science Explorer's Camp

#### July 9- 13, 12:30-3:00 PM @ Wings of Eagles

Are you curious about how things work? You can use your own imagination and creativity during this week using LEGO's Simple Machines and other hands-on activities. Come explore with us!

#### **Maker Space Tot**

#### July 9-13, 9:00-11:30 AM @Wings of Eagles

Come to our maker space and explore hands-on crafts, sewing, 3D printing, LEGOs, programming and robotics. This session will focus on making with our little learners in grades K-2.

#### **Grades 3-4**

#### **Marvelous Machines**

#### July 16-20, 9:00 AM-3:00 PM @Wings of Eagles

Did you know that you were born an engineer? Do you like to build things, take them apart and figure out how they work? This program gives you a chance to design, create and improve the things that you engineer. This program is designed by the Boston Museum of Science and includes many hands-on experiments and activities. Such fun!

#### **Engineering: Make it Happen**

#### July 31-August 4, 12:30-3:00 PM @Wings of Eagles

Engineer and make it happen! Students will take a look at different projects and engineer solutions. These 100 percent hands-on activities will provide students with the time to not only to design but create different challenges.

#### Grades 4-8

## **Fun With Science**

#### July 9-13, 9:00-11:30 AM @Wings of Eagles

Household products are curiously inspiring. With a splash of food coloring and a teaspoon each of liquid starch and glue, we can concoct an elastic, slimy glob technically known as a "non-Newtonian fluid." We even make our own bubble gum! Come out and enjoy our course in the hands on and edible.

#### **Mars Base Eagle**

#### July 24-28, 9:00-11:30 AM @Wings of Eagles

Did you know that we are projected to have a man on Mars by 2040? Learn about Mars and experience how we will colonize the planet in the near future. Hands-on fun and take home projects.

#### **RCX Robotics**

#### July 31-August 4, 9:00-11:30 AM @Wings of Eagles

RCX Robotics are an earlier generation of the NXT Mindstorm Robotics. RCX is a team activity designed to strengthen students' teamwork skills, communication skills, computer programming and problem solving skills. Your robot can use simple math commands to achieve these tasks. Failure is actually encouraged in RCX. Remember, if Thomas Edison had not failed thousands of times, we wouldn't have the light bulb today. Therefore, as your students fail, they are actually learning and one day will succeed.

#### **Maker Space**

#### July 31- August 4, 9:00 AM-3:00 PM @Wings of Eagles

Come to our maker space and explore hands-on crafts, sewing, 3D printing, LEGOs, programming and robotics.

#### **Grades 5-8**

#### **Aviation**

#### July 16-20, 12:30-3:00 PM @Wings of Eagles

Hop into the pilot seat, take the controls and learn the basics of aviation. We will build airplanes and learn using actual flight simulators. This non-stop action is great for students who love video games and science.

#### **NXT Mindstorm Robotics**

July 9-13, 12:30-3:00 PM @Wings of Eagles

July 24-28, 9:00 AM-3:00 PM @Wings of Eagles

## (This is an advanced class – MUST have completed a program either at Wings of Eagles or in your school)

Do you love the Disney/Pixar movie WALL·E? Do you like to build things using LEGOs? Have you ever thought about programming your own robot? If you answered "yes" to these questions, our LEGO Robotics course is for you! This introductory course introduces students to the basics of NXT LEGO Robotics. Students will work in teams to design, build and program their own robots. Students will be involved with programming their robots through several challenges.

## Rocketry

#### July 16-20, 9:00-11:30 AM @Wings of Eagles

Rockets are the oldest form of self-contained vehicles in existence. Early rockets were in use more than two thousand years ago. Through a long and exciting history, rockets have evolved from simple tubes filled with black powder into mighty vehicles capable of launching a spacecraft out into the galaxy. Few experiences can compare with the excitement and thrill of watching a rocket-powered vehicle, such as the Space Shuttle, thunder into space. Dreams of rocket flight to distant worlds fire the imagination of both children and adults. Come to Wings of Eagles and learn the science behind rockets. Be ready to build and fly your very own rocket.

## Science on a Sphere

#### July 24-28, 12:30-3:00 PM @Wings of Eagles

Wings of Eagles is the only local attraction with a Science on a Sphere. We can project more than 1,000 different data sets and images on this huge globe. Come learn how to operate this amazing device. Become a volunteer Science on a Sphere docent. Lots of hands-on activities are offered during this fun-filled week.

#### **EV3 Mindstorms**

#### August 7-11, 9:00 AM-3:00 PM @Wings of Eagles

Come and experience the newest addition to the LEGO team of robots. This newer system allows students to engineer and design brand new builds and increase their programing skills. If they like NXT, they will love EV3.

#### Grades 7-12

#### **Underwater Robotics**

#### July 9-13, 12:30-3:00 PM @Ernie Davis Academy (formerly EFA)

Do you like to build robots? Have you ever seen an ROV (Remotely Operated Vehicle)? Learn how to build an ROV and then see how it works underwater. ROVs are usually used for ocean exploration and research as well as by the gas industry for oil and gas drilling and support. Some are even used for crime scene investigation. ROVs are unoccupied vehicles that can explore a variety of locations in the water and are piloted by someone on shore or on a boat.

#### **VEX Robotics**

#### July 9-13, 9:00-11:30 AM @Wings of Eagles

Do you like to build things that move? Are you fascinated by the Mars Rovers? Have you ever thought about programming your own robot? Students will learn to use Intellitek EasyC and Boot Camp software and will work together using robotics content to strengthen their creative and problem solving skills. These robots are made of metal and definitely are the wave of the future. No prior knowledge necessary.

#### **Program Bridge**

#### 11:30 AM-12:30 PM @Wings of Eagles

Our lunch time program offers students a chance to sign up for a morning and afternoon class in their age range and stay with us for programming at the museum all day. For an additional \$25.00, students pack their lunch and get to experience hands-on activities and science demos until the next class starts.



