

July continued

- **Robotics.** Learn the basics of programming and see your program come to life. This camp is perfect for those with no prior coding experience. We'll program different types of robots and learn how robots are used in the real world. Block-based programming helps you quickly master basic coding to let your creativity shine.
- **The Great Outdoors.** What does it take to survive and thrive in the great outdoors? Explore the science behind GPS, learn about the thermodynamics of sleeping bags, study the science of fire building and more as you enjoy the beautiful surroundings of NIU's Lorado Taft Field Campus and put your knowledge into action.
- **Video Game Design.** Are you interested in video games, animation or 3D virtual worlds like Minecraft? Learn about careers in game design, explore popular video games and use professional software to design and develop a playable video game. No prior experience is necessary.

Engineering Amusement

Grades 6-8. July 26-31. Residential.
Learn the ups and downs of amusement park attractions, design thrill rides, see how engineers optimize traffic flow, and even concoct carnival confections. Then spend a day doing experiments at Six Flags! 815-753-0533 or stemcamps@niu.edu

High School Day and Residential Camps

Jazz Camp
Grades 8-12 completed. July 12-17. Residential.
Calling enthusiastic jazz musicians of all skill levels. This camp is jam-packed with performing, learning and listening for musicians who want to improve their understanding of the jazz tradition, plus jam sessions, recreational activities and final-day concerts for family and friends. 815-753-1450 or ksherman2@niu.edu.

Speech Camp
Grades 9-12. July 12-17. Residential.
Work with experienced coaching staff and members of NIU's nationally ranked speech team to hone your public speaking skills including researching, writing and delivering speeches. 815-753-0533 or stemcamps@niu.edu.

Fashion Studio Camp
Grades 8-12 completed. July 16-17. 9 a.m. to 4 p.m. daily.
Create fashion displays and experiment with fashion technologies as you learn about color forecasting and design. 815-753-6336 or scosbey@niu.edu

Theatre Arts Camp - Senior
Grades 9-12 completed. July 19-24. Residential.
Enjoy a week packed with theatre activities, including production rehearsals, daily workshops, acting classes, theatre games and improv exercises. This year's theme is Cosmic Connections. 815-753-1450 or ksherman2@niu.edu.

Visual Arts Camp
Grades 8-12 completed. July 19-24. Residential.
Calling all serious high school artists. Experiment with new materials, techniques and ideas while producing portfolio-quality work in a university environment. Family and friends enjoy the final gala art show before you take your creations home. 815-753-1450 or ksherman2@niu.edu.

STEM Career Explorations
Grades 10-12. Residential. Sunday-Friday.
Spend a week immersed in a subject of your choice. You'll work on real-world projects, meet with experts in your chosen field and learn about a variety of careers.

- **Chemistry, Engineering, Health Sciences or Making.** July 19-24
- **Engineering, Health Sciences, Product Design or Video Game Design and Development.** July 26-31

- Career Tracks**
- **Chemistry.** Chemists work on teams to develop pharmaceuticals; test food, water and soil; and even analyze evidence in criminal investigations. Get hands-on experience with chemical reactions, meet with chemists working in the field and learn about the wide range of chemistry careers available.
 - **Engineering.** Engineers work in teams to develop, test and produce everything from the smallest nanotechnology to the largest rockets. Complete a series of hands-on engineering projects as you learn about the different careers available to engineers. NIU engineering faculty will lead sessions daily.
 - **Health Sciences.** Meet pharmacologists, biomedical engineers, epidemiologists and other health professionals. Tour their labs and perform hands-on experiments, such as dissecting a cow heart and suturing it back together.
 - **Making.** Discover a range of tools and processes to help your creativity flourish. Build your own projects using power tools, 3D printers, soldering irons and more. Bring your own project idea or we'll help you get started. *Highly recommended for those who wish to enroll in Product Design camp.*
 - **Product Design.** Do you have a great idea for a product? Stretch your skills and ingenuity as you learn how to take your idea from design to prototyping, testing and improving. You'll walk away with a big-picture view of how products are developed, manufactured and brought to market. *Making camp is highly recommended, but not required, before enrolling in Product Design.*
 - **Video Game Design and Development.** Are you interested in video games, animation or computer programming? Explore popular video games, learn the essentials of game design, and try your hand at designing your own game using professional software. No prior experience is necessary.



August Middle School and High School Day Camp

Esports Bootcamp
Grades 7-12. Aug. 5-9. Hoffman Estates Campus. 9 a.m. to 4 p.m. daily.
Do you like to play video games or watch gamers on YouTube or Twitch.tv? Learn how you can play video games competitively in college, explore esports careers and advance your video gaming skills. 815-753-0673 or dcl@niu.edu.



Athletics Elementary School, Middle School and High School

- Top collegiate coaches mentor young athletes at NIU's premiere facilities. Campers are grouped according to age and skill level. Tentative camps are listed below and are subject to change. View additional camp descriptions, dates and more information at niuhuskies.com/camps.
- **Baseball.** Youth Camp. Ages 7-12.
 - **Men's Basketball.** Youth Camp. Ages 8-13.
 - **Women's Basketball.** Youth Camp. Ages 6-13.
 - **Football.** Youth Camp. Entering grade 8 and below. High School Camps. Grade 8 and above.
 - **Softball.** Skills Camp. Grade 7 and above. Youth Skills Camp. Grades 1-6.
 - **Volleyball.** Overnight Camps. Ages 10-18. One-day Clinics. Ages 10-18.
 - **Wrestling.** Grades 5-12. Ages 10 and over.
 - **Men's Soccer.** Youth Camp. Ages 5-12. ID Camps. Grades 9 and above.
 - **Women's Soccer.** Youth Camp. Ages 7-13. ID Camps. Grades 9 and above.
 - **Gymnastics.** Elite Camp. Ages 7 through 18.
 - **37th Annual Sports Medicine Student Overnight Workshop.** Ages 14-18.



Summer Camps 28 on Campus at NIU

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Summer Camps 28

on Campus at NIU

June

Elementary School

STEM Day Camps

Grades 2-5. 9 a.m. to 3 p.m., daily.

- **Let's Build It!**

June 15-19.

Get your hardhat and toolbelt ready, and let's start building. Take measurements, swing a hammer and turn screws to create your very own wooden projects to bring home. No experience necessary. 815-753-0533 or stemcamps@niu.edu.

- **3-2-1 Lift Off!**

June 22-25.

Blast-off for a week of out-of-this-world fun. Explore the science of outer space as you create homemade rockets and learn about the past, present and future of space exploration. 815-753-0533 or stemcamps@niu.edu.

Middle School

Day Camps

- **Just for Girls! Video Game Design Camp**

Grades 5-9. June 15-19.

DeKalb Campus. 9 a.m. to 4 p.m. daily.

Are you interested in coding, computers, virtual worlds or video games? Join us for a video game design camp just for girls. Develop your coding skills and meet and interact with women who develop video games. 815-753-0673 or dcl@niu.edu.

- **Minecraft Coding and Video Game Design Camp**

Grades 5-9. June 22-26.

DeKalb Campus. 9 a.m. to 4 p.m. daily.

If you love Minecraft, block and JavaScript programming; modifying skins; 3D development;

or video games; this fun camp is for you. You'll develop skills in coding, problem solving, graphic design and teamwork. 815-753-0673 or dcl@niu.edu.

- **Digital Photography Day Camp**

Grades 5-8. June 15-19. 9 a.m. to 3 p.m. daily.

Live the life of a photographer for one exciting week as you create your own photographs in preparation for a final art show. Discover how the pros work as you master the steps of digital photography from composing, lighting and taking photographs to photo editing and printing. 815-753-0533 or stemcamps@niu.edu.

High School

Residential Camps

- **Creative Writing Camp**

Grades 9-12. June 14-19. Residential.

Join a community of creative writers. Develop skills in poetry, fiction and creative non-fiction and learn to give and accept constructive criticism. Practice journaling, free writing, guided writing and revision strategies. 815-753-0533 or stemcamps@niu.edu.

- **Avalon Quartet Chamber Music Retreat**

Grades 8-12 completed. June 15-18. Residential.

Develop listening skills, performance skills and musicianship with NIU School of Music faculty Blaise Magniere, Marie Wang, Anthony Devroye and Cheng-Hou Lee — the Avalon String Quartet. Take part in private lessons, master classes, coaching, concerts, recreational activities and a final chamber music recital. Participation by application only. 815-753-1450 or ksherman2@niu.edu.

NIU High School Brass Seminar

Grades 8-12 completed. June 15-18. Residential.

Brass musicians participate in master classes and recitals with NIU School of Music faculty and the faculty of the Pokorny Low Brass Seminar. Experience rehearsals, brass chamber ensembles and brass choir, recreational activities and an exciting final concert. 815-753-1450 or ksherman2@niu.edu.

- **Film Camp**

Grades 10-12. June 21-26. Residential.

Work with experienced media producers, camera operators and directors while learning digital filmmaking from script to screen. Complete a group-produced movie for family, friends and festivals. 815-753-0533 or stemcamps@niu.edu.

- **STEM Read Presents: Science + Fiction Camp**

Grades 10-12. June 21-26. Residential.

Get ready to science up your fiction. Visit labs, experience hands-on STEM activities and use what you've learned to create sci-fi stories. Pick the brains of STEM and writing experts in small group sessions and meet best-selling authors. 815-753-0533 or stemcamps@niu.edu.



July

Elementary School

STEM Day Camps

- **Colors and Sounds.**

Grades 2-5. July 20-23. 9 a.m. to 3 p.m. daily.

Get in on the fun when you use your STEM skills to create a rainbow of exciting projects. Create your own rainbow art and build your own musical instruments as you learn about the science of colors and sound. 815-753-0533 or stemcamps@niu.edu.



STEM Career Explorations

Grades 10-12, Residential. Sunday-Friday.

Spend a week immersed in a subject of your choice. Work on real-world projects, meet with experts in your chosen field and learn about a variety of careers.

- **Computer Science, Engineering, Health Sciences or Video Game Design and Development**

June 14-19.

- **3D Design, Life Sciences or Video Game Design and Development**

June 21-26.

- **3D Design.** Discover careers in 3D design and manufacturing. Use two of the leading computer aided design programs to create your own 3D objects, meet with professionals in the field, and tour the Maker Space at the NIU College of Engineering and Engineering Technology.
- **Computer Science.** Learn about the different career paths for computer programmers as we explore core programming concepts and program our own mini-computers.
- **Engineering.** Engineers work in teams to develop, test and produce everything from the smallest nanotechnology to the largest rockets. Complete hands-on engineering projects as you learn about different careers for engineers. NIU engineering faculty will lead sessions daily.
- **Health Sciences.** Meet pharmacologists, biomedical engineers, epidemiologists and other health professionals. Tour their labs and perform hands-on experiments, such as dissecting a cow heart and suturing it back together.
- **Life Sciences.** Learn about careers in biology, horticulture, zoology, environmental sciences and more as you experience exciting field trips and hands-on projects. Highlights include visits to Afton Forest Preserve and Nachusa Grasslands.
- **Video Game Design and Development.** Are you interested in video games, animation or computer programming? Try your hand at designing your own video game using professional software as you learn the essentials of game design, animation and coding.

Middle School

Day and Residential Camps

- **Creative Writing Junior High Camp**

Grades 6-8. July 5-10. Residential.

Develop skills in poetry, fiction and creative non-fiction and learn to give and accept constructive criticism. Practice journaling, free writing, guided writing and revision strategies. 815-753-0533 or stemcamps@niu.edu.

- **From the Moon to Mars, and Beyond!**

Grades 5-6. July 5-10. Residential.

New activities for 2020. Join us on a STEMtastic voyage through the solar system. We'll create our own rockets and rovers and explore the science and technology that will soon take humans back to the moon then on to Mars and beyond. 815-753-0533 or stemcamps@niu.edu.

Percussion Camp

Grades 6-12 completed. July 6-10. Residential.

Explore the amazing world of percussion with NIU faculty and notable alumni. Perform in ensembles and participate in classes on steel pan, snare drum, drum set, timpani and keyboard percussion. Enjoy recreational activities and an exciting final camp concert performance. 815-753-1450 or ksherman2@niu.edu.

- **It's Not Magic, It's STEM! Camp**

Grades 5-6. July 12-17. Residential.

Don't be a muggle. Spend a week discovering the magic of STEM. Campers will split into houses and complete STEM activities and challenges to compete for the coveted STEM cup. Remember, when things look like magic, there's a scientific discovery just waiting to be uncovered. 815-753-0533 or stemcamps@niu.edu.

- **Theatre Arts Camp Junior**

Grades 6-9 completed. July 12-17. Residential.

Enjoy a week packed with theatre activities including production rehearsals, daily workshops, acting classes, theatre games and improv exercises. This year's theme is Cosmic Connections. 815-753-1450 or ksherman2@niu.edu.

- **Video Game Design and Minecraft**

Grades 5-9. July 13-17. Naperville Campus.

9 a.m. to 4 p.m. daily.

Try your hand at game design and learn about various careers as you use professional software to design and develop a playable video game. Use GameMaker, JavaScript and Minecraft. 815-753-0673 or dcl@niu.edu.

- **Video Game Design with GameMaker and Pygame**

Grades 5-9. July 20-24. DeKalb Campus.

9 a.m. to 4 p.m. daily.

Interested in making your own video games but don't know where to start? Learn two game design engines: GameMaker and Pygame. Think abstractly about coding with GameMaker and learn the basics of coding with Python's readable and approachable format. 815-753-0673 or dcl@niu.edu.

Exploring STEM

Each week offers several exciting topics to engage young scientists in the wonders of STEM.

Grades 7-9. Residential. Sunday-Friday.

- **Chemistry, Digital Arts, Engineering, Games and Puzzles, Robotics or Video Game Design and Development.** July 5-10 **NIU DeKalb.**
- **Art, AR/VR, Drones, From the Moon to Mars, The Great Outdoors or Waterbotics.** July 12-17 **Lorado Taft.**



Check out the descriptions below for details about each track.

- **Art.** Design, create and innovate. Experience physics through pendulum painting. Exploit the different densities of paints and other solvents to create art through acrylic paint pouring. Explore the connections between art and science with these and other hands-on creative projects.
- **AR/VR.** Delve into augmented reality (AR) and virtual reality (VR) by trying out the latest technologies as you engage in hands-on projects. Create a physical object and transform it into a digital one through AR technology; design a virtual museum of your own; conduct science experiments in a virtual lab.
- **Chemistry.** From the food we eat to the water we drink to the products we use every day, chemistry is in everything and chemists work in nearly every field. In this track, you'll get hands-on experience with chemical reactions, food chemistry, crystal growing and more. Learn basic chemistry skills and concepts as you explore the fun world of chemistry.
- **Digital Arts.** Explore the technologies and processes of digital design in a variety of digital media. Turn Hubble Telescope data into beautiful colorized images, engrave designs onto tiles with a laser cutter, create unique videos and photographs with greenscreen technology, and master the basics of animation.
- **Drones.** Experiment and push the limits of your drone in this week of flying fun. Code drones and create obstacle courses for them to navigate; design drone attachments to solve problems; practice drone photography; and enjoy flying your drone over the fields, forests and river of NIU's Lorado Taft Field Campus.
- **Engineering.** Engineers develop everything from artificial hearts to buildings, bridges and self-driving cars. Develop your critical-thinking and problem-solving skills with hands-on challenges and fun design competitions that will spark your inner engineer.
- **From the Moon to Mars, and Beyond.** (*New activities for 2020!*) You're in for a week of out-of-this-world fun as you explore the past, present and future of space travel. Highlights include building and launching a model rocket, designing a rover to explore the surface of Mars and learning about telescopes and astrophotography.
- **Gaming and Puzzles.** STEAM learning and fun go hand in hand as you explore the science and math behind your favorite games and develop a game of your own. Play old and new favorites such as Yahtzee, Monopoly, Catan and Pandemic and solve puzzles to navigate our escape rooms. Then put your logic and design skills into action to create your own escape room.
- **LEGO WaterBotics.** Design, build and program LEGO NXT robots and then test them in a series of underwater challenges, surrounded by nature at our Lorado Taft Field Campus. Practice the engineering design process and hone your programming skills as you build, test and then refine your design.

