

# TEXAS A&M UNIVERSITY SUMMER CAMPS FOR K-12 STUDENTS

## STEM CAMPS 2018

### COLLEGE OF AGRICULTURE

#### Department of Animal Science

##### **Aggieland Lamb & Goat Camps** - <https://animalscience.tamu.edu/about/facilities/sheep-center/youth-camps/>

A 3-day program dedicated to teaching parents and students the fundamentals of feeding, nutrition, health, facilities, selection, and showmanship. For anyone 8 years and older. Registration opens at noon on Monday March 19, 2018

**COSTS:** Campers \$175, Adult/Sponsor \$75

**DATES:**

Lamb Camp – July 13 – July 15, 2018

Goat Camp – July 20 – July 22, 2018

##### **Texas A&M University Horse Judging Camp** - <https://animalscience.tamu.edu/horsejudgingcamp/>

Up-to-date industry instruction on halter and performance classes. Reasons option with group and personal instruction. For Youth ages 12-18.

**COST:** \$350 per participant (includes meals, housing, judging manual, notebook and t-shirt); \$300 per participant if commuting and for coaches. Registration will open on April 1, 2018.

**DATES:** June 20 – June 22, 2018

June 27 – June 29, 2018

Entries due by May 18, 2018

##### **Livestock Judging Camp & Clinic** - <https://animalscience.tamu.edu/workshops/youth-workshops/livestock-judging-camp/>

This year's camps are designed for 4-H and FFA members interested in building their knowledge of evaluating market and breeding animals, including beef, swine, sheep, and goats. This camp focuses on selection principles, oral reasons, live market evaluation, and breeding animal performance data. Any 4-H and FFA members are welcome to attend. Instructors include Texas A&M faculty and staff, and members of the 2017 livestock judging team. Must be ages 11-18 to attend.

**COST:** \$300. Camp fee includes lodging, meals, literature and t-shirt.

**DATES:** Camp 1: June 17 – June 19, 2018

Camp 2: June 22 – June 24, 2018

Registration deadline is May 2, 2018

#### Department of Poultry Science

##### **Poultry Institute for Youth** - <https://posc.tamu.edu/texas-agrilife-poultry-extension-specialists/poultry-institute-for-youth/>

The purpose of this program is to give high school students a chance to learn about the poultry industry through hands-on activities. The participants will have the opportunity to meet Texas A&M staff as well as leaders from the poultry industry. A portion of the institute will consist of hands-on experience by working directly with poultry as well as visiting poultry facilities. Attendees must be a high school junior or senior in the following school year, or a college freshman; Have an interest in poultry; Willing to interact with other individuals/groups about the poultry industry; and an interest in meeting with individuals from Texas A&M University and the poultry industry.

**COST:** \$50.

**DATES:** June 10 -12, 2018

Applications due by May 10, 2018

## COLLEGE OF ARCHITECTURE

### **Camp Arch** - <http://www.arch.tamu.edu/future/camparch/>

Camp ARCH is a summer camp designed to give students an opportunity to experience the professions of Architecture, Construction, Landscape Architecture, Urban Planning, and Visual Design. For one week, participants are taught by faculty and current students from the College of Architecture. Each class will introduce students to the fundamentals of the field while allowing them to explore and expand upon their abilities to create and construct projects. Finished projects will be showcased at the end of the week. Students interested in the camp should express their interest in any of the following areas: Architecture, Construction Science, Landscape and Urban Planning and Visualization.

**COST:** \$1,200

**Registration Deadline is April 1, 2018**

**DATES:** July 8-July 14

## COLLEGE OF EDUCATION

### **Department of Teaching, Learning and Culture**

Aggie STEM - <http://aggiestem.tamu.edu/summercamp/>

#### **Introduction to STEM Fields**

If you are a middle school student or student who has not attended an Aggie STEM camp before, then one of these camp options is for YOU!! In **Option A**; you will have the opportunity to construct a 3D print, research the physics behind flying drones, and tour various STEM labs on the TAMU campus. In **Option B**; you will have the opportunity to explore plant biology, be introduced to coding using Scratch, create a microcontroller, and tour various STEM labs on the TAMU campus. This camp is a first come-first serve and is mostly geared toward students entering 7th-8th grades.

**COST:** \$1400

**DATES:**

Option A: June 10<sup>th</sup> – June 16<sup>th</sup>

Option B: July 8<sup>th</sup> – July 14<sup>th</sup>

#### **Advancing into STEM fields**

If you are a rising high school student or student who has experience in STEM topics, then one of these camp options is for YOU!! In **Option A**; you will have the opportunity to research renewable energy concepts tied to creating a hydroponic, explore discrete mathematics topics, and tour various STEM labs on the TAMU campus. In **Option B**; you will have the opportunity to prepare for the Math section on the ACT test, undertake advanced coding exercises, research the physics behind Fidget spinners, and tour various STEM labs on the TAMU campus. This camp is a first come-first serve and is mostly geared toward students entering 9th – 12th grade.

**COST:** \$1400

**DATES:**

Option A: June 10<sup>th</sup> – June 16<sup>th</sup>

Option B: July 8<sup>th</sup> – July 14<sup>th</sup>

#### **All Girls: Introduction to STEM Fields**

If you are a middle school girl or girl who has not attended an Aggie STEM camp before, then this camp is for YOU!! You will have the opportunity to explore plant biology, be introduced to coding using Scratch, create a microcontroller, and tour various STEM labs on the TAMU campus. This camp is a first come-first serve and is mostly geared toward students entering 7th-8th grades.

**COST:** \$1400

**DATES:** June 24<sup>th</sup> – June 30<sup>th</sup>

### **All Girls: Advancing into STEM**

If you are a rising high school girl or have experience in STEM topics, then this camp is for YOU!! You will have the opportunity to utilize advanced statistics to make forecasting predictions, explore advanced chemistry topics, and complete vet med labs. Scientists and veterinary students will give lectures covering animal/human health topics such as orthopedics, nutrition, dental health, behavior, and histology. Following each lecture students will participate in hands-on activities to develop a more concrete understanding of concepts presented in lectures. This camp is a first come-first serve and is mostly geared toward girls entering 9th – 12th grade with an interest in veterinary medicine.

**COST:** \$1400

**DATES:** June 24<sup>th</sup> – June 30<sup>th</sup>

### **Honors Program**

If you are a mature rising high school junior or senior with an interest in science, math or engineering and the ability to work independently and responsibly, you might be interested in the Aggie STEM Honors Program (ASHP), a non-credit enrichment program sponsored by Aggie STEM and the Colleges of Education and Engineering. You will have the opportunity to work collaboratively on research projects, crack cryptography codes, undertake advanced coding exercises, explore discrete mathematics topics, and conduct data analyses. You will also tour various STEM labs on the TAMU campus. This camp will require an application and a test to qualify for entrance – the due date has been **extended to February 15, 2018**.

**COST:** \$2450 Deposit: \$500

**DATES:** June 10<sup>th</sup> – June 23<sup>rd</sup>

### **Introduction to STEM Fields (Two Weeks)**

If you are a middle school student or student who has not attended an Aggie STEM camp before, then this camp is for YOU!! You will have the opportunity to create your own marketing sample, explore plant biology, construct a 3D print, and be introduced to coding using Scratch. You will also tour various STEM labs on the TAMU campus. This camp is a first come-first serve and is mostly geared toward students entering 7th-8th grades.

**COST:** \$2450

**DATES:** July 8<sup>th</sup> – July 21<sup>st</sup>

### **Advancing into STEM Fields (Two Weeks)**

If you are a rising high school student or student who has experience in STEM topics, then this camp is for YOU!! You will have the opportunity to prepare for the Math and Reading sections on the ACT test, construct structures, explore advanced chemistry topics, crack cryptography codes, and undertake advanced coding exercises. You will also tour various STEM labs on the TAMU campus. This camp is a first come-first serve and is mostly geared toward students entering 9th – 12th grade.

**COST:** \$2,450

**DATES:** July 8th – July 21st

### **Discover STEAM Foundation Presents Coding: Modeling Infectious Diseases and Cures**

This is a one-week 8hr/day immersive residential summer lab where students will learn design thinking and computer science skills. They will use Microsoft Minecraft to design their own multi-player video game. They will integrate AI & Cognitive computing tools from IBM Watson. They will develop a robot chatbot. They will learn about human physiology, diseases/infections, and treatments. Students will research and discuss the different types of diseases, cures, the dosage of serums. They will fight the antigens inside the body to cure it of the illnesses that the students design! Students will work in groups to storyboard, design graphics and code to develop this prototype. Students will interact with other teams around the world promoting similar solutions on Skype. They will communicate with physicians, doctors, and experts from IBM and Microsoft.

**COST:** \$1,870

**DATES:** July 15th – July 21st

### **DOWNSHIFT Into STEM™'s AutoSTEM™ Camp APEX™ Program**

Our camp begins with your student being immersed in the Aerodynamics, Physics, Engineering and EXhilaration or APEX™ of Race car Design and Performance. This best in class Open Source Repository is our newest proprietary learning approach to game changing content application by students. Your student will be engaged in multiple activities that will have them understanding how to research and apply Science, Technology, Engineering and Mathematics to the design of a race car.

**COST:** \$1,870

**DATES:** June 24th – June 30th

### **Department of Educational Psychology**

#### **Youth Adventure Program - <http://youthadventureprogram.com/>**

The YOUTH ADVENTURE PROGRAM (YAP) is a series of one week courses designed to encourage career exploration in fields of interest to gifted and talented students. YAP is held on the College Station campus of Texas A&M University. Although no admission criteria are utilized, applicants should be highly motivated to learn, think, and solve problems and should have a strong interest in future college, university, and/or professional school attendance. Only one course is selected per week of attendance, and applicants are admitted on a first come basis.

To attend YAP 2018, students must have completed 6<sup>th</sup> grade and be at least 12 years old by the start of camp. A rising 12<sup>th</sup> grader is a current junior in high school. Current 12<sup>th</sup> graders/seniors are ineligible to attend YAP 2018.

YAP TAMU	(Rising 12 <sup>th</sup> Graders Only)	Sunday, June 17 – Friday, June 22	\$1050
YAP STEM	(Rising 7 <sup>th</sup> – 10 <sup>th</sup> Graders)	Sunday, June 17 – Friday, June 22	\$1050
YAP June	(Rising 9 <sup>th</sup> – 12 <sup>th</sup> Graders)	Sunday, June 24 – Saturday, June 30	\$1200
YAP Costa Rica	(Rising 9 <sup>th</sup> – 12 <sup>th</sup> Graders)	Saturday, June 30 – Friday, July 6	\$2200
YAP July	(Rising 8 <sup>th</sup> – 11 <sup>th</sup> Graders)	Sunday, July 22 – Friday, July 27	\$1050
YAP NYC	(Rising 9 <sup>th</sup> – 12 <sup>th</sup> Graders)	Saturday, July 28 – Friday, August 3	\$2200

## **COLLEGE OF ENGINEERING**

### **Summer Opportunities in Aerospace Research (SOAR) - <http://engineering.tamu.edu/aerospace/future-students/undergraduate/camp-soar.html>**

Camp SOAR is a six day summer camp designed to expose upcoming high school juniors and seniors with an interest in Aerospace Engineering to the research and facilities at Texas A&M University's Department of Aerospace Engineering (AERO). During the week at Texas A&M, students will be able to explore the field through design projects and departmental tours. They will have the opportunity to interact with current students as well as world renowned faculty. Students who will be enrolled as high school seniors or juniors in Fall 2018 are eligible to apply; we encourage out-of-state students, minorities and women to apply.

**COST:** \$1,500

**DATES:** June 17 – June 23, 2018

Applications close on March 11, 2018

### **Camp Build - <http://engineering.tamu.edu/civil/academics/build.html>**

Camp BUILD is a one-week summer camp designed for high school juniors and seniors. Students are given the opportunity to explore Civil Engineering as a major at Texas A&M University and experience the Aggie culture! Some of the camp activities:

- **Work on fun design projects**, guided by civil engineering faculty and students.
- Learn how engineers use the **engineering design process**.

- **Tour department facilities and labs** like our structures and materials testing facility and the Texas A&M Transportation Institute.
- **Enjoy recreation:** Scheduled opportunities on-campus as well as off-campus. Stay in a dorm: Dorm life is part of the Aggie experience!
- **Learn about the A&M admissions process:** Students and parents will receive information about Texas A&M admissions as well as financial aid opportunities.

**COST: \$400**

**DATES:** Session 1: July 23 – July 28, 2018

Session 2: July 30 – August 4, 2018

### **National Center for Therapeutics Manufacturing**

**BioFORCE** - <http://nctm.tamu.edu/Training/BioFORCE/index.html>

BioFORCE is a residential STEM (Science, Technology, Engineering, and Mathematics) summer program of the National Center for Therapeutics Manufacturing that exposes high school students to the amazing process of how cutting-edge research and medical discoveries become new drugs and pharmaceutical treatments. BioFORCE prepares students for college programs in engineering and science and helps them discover their potential to become a scientist who creates a blockbuster, life-saving medicine or an engineer who manufactures disease-eradicating vaccines! Requirements: Must be between the ages of 13 and 18, have a GPA of at least 2.75, be a US citizen or a permanent resident.

**COST:** \$250

**DATES:** June 17 – June 21, 2018 – BioFORCE I: Today's Medicine

July 8 – July 12, 2018 – BioFORCE II: Tomorrow's Medicine

July 22 – July 26, 2018 – BioFORCE III: My Role in the Future of Medicine

### **Texas A&M High Performance Research Computing**

**HPRC Summer Computing Academy** - <https://hprc.tamu.edu/academy/>

A week-long Python coding **EXTRAVAGANZA** lead by Computer Science Professionals! Learn how to code on your *very own Pi*! This camp is for rising 9<sup>th</sup> graders through graduating seniors.

**COST:** \$250 Scholarships available.

**DATES:**

June 18 – June 22, 2018 – Introductory Camp

June 25 – June 29, 2018 – Intermediate Cybersecurity Camp

### **Texas A&M Engineering Extension Service (TEEX)**

**Cyber Innovation Camp** - <https://teex.org/Pages/events/cybercamp.aspx>

TEEX cyber camp is back and better than ever! This summer, students will use Raspberry Pi computers to learn programming, cybersecurity, electronics and sensors, engineering design, and much more! The non-residential day camp is open to rising 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grade students. Basic programming knowledge helpful, but not required.

**COST:** Free

**DATES:**

June 11 – June 15, 2018 – Session 1

July 30 – August 3, 2018 – Session 2

Applications and teacher recommendations are due by May 1

## COLLEGE OF GEOSCIENCES

**GeoX** - [https://geosciences.tamu.edu/academics/camps\\_and\\_outreach/geox/index.php](https://geosciences.tamu.edu/academics/camps_and_outreach/geox/index.php)

Join us for the Geosciences Exploration Summer Program for high school students where you will discover careers that can take you anywhere in the world while staying on the Texas A&M campus and learning what it means to be an Aggie. We have a mix of classroom, campus, and field visits planned, including:

- Searching for fossils in a rural river
- Visiting a Fortune 500 company
- Launching a weather balloon
- Exploring the geoscience of Mars
- Seeing the instruments used to explore the deep ocean
- Using GPS to guide the way during a scavenger hunt
- Attending admissions and financial aid information sessions
- Discussing career options with industry leaders and College of Geosciences faculty

**COST:** Free

**DATES:** June 10-16, 2018

Applications due by April 2, 2018

## COLLEGE OF SCIENCE

**Department of Math**

**2018 SMaRT Camp** - <http://www.math.tamu.edu/outreach/Camp/>

SMaRT is a two-week summer program at Texas A&M University. It is intended to facilitate interest in mathematics of advanced high school students. The camp will provide an intensive learning environment in mathematics, where high school students will learn not only useful mathematical facts, but also how to approach mathematical problems, prove mathematical statements, and write the results. High school students of age 14-18, who are US citizens or permanent residents, are eligible to apply.

**COST:** Free

**DATES:** June 17 – June 30<sup>th</sup>, 2018

**SEE-Math** - <http://see-math.math.tamu.edu/>

Do you think math is fun? Come join our Summer Educational Enrichment in Math (SEE-Math) program this summer and "SEE" how much fun mathematics can be. You will learn how to create movies on a computer, count in complicated situations, color a map, count infinities, solve logical puzzles, make and break codes, and many other interesting problems. You might also like to take part in our problem contests and win a prize!! Some of these topics may not seem like mathematics to you, but they actually are!

**COST:** \$100 (collected after acceptance into the program)

**DATES:** August 6 – August 17, 2018

## COLLEGE OF VETERINARY MEDICINE & BIOMEDICAL SCIENCE

**Veterinary Enrichment Camp** - <http://vetmed.tamu.edu/bims/future/veterinary-enrichment-camp>

This special summer program is for high school students who have an interest in the field of veterinary medicine. The three day program will give participants the opportunity to explore the possibilities of veterinary medicine as a career. Participants will live in university dormitories, attend special sessions, and discover the broad diversity of career opportunities available to graduates with a Doctor of Veterinary Medicine degree. The program admissions process is competitive and similar to a typical academic admissions process.

**DATES:** July 17 – July 20, 2018

Applications must be postmarked by March 3, 2018

## TEXAS A&M UNIVERSITY AT GALVESTON

**Sea Camp and Sea Camp TAG** - <http://www.tamug.edu/seacamp/SeaCampPrograms/index.html>

Sea Camp was founded in 1986 and provides residential, hands-on marine adventures for 10-18 year olds during the summer months. Talented & Gifted (TAG) camps are part of Sea Camp and are for high ability students Ages 14-18. Sea Campus Kids (day camp) is also available for ages 6-11.

**COST:** varies per camp. See website for details.

**DATES:** Sea Camp is offered the entire summer. Please see the website for dates and topics.