![UC Davis School of Education logo]

UC**DAVIS**
SCHOOL of EDUCATION

ADVENTURES IN ENRICHMENT
A PROGRAM OF UC DAVIS SCHOOL OF EDUCATION

A STEM-TASTIC SUMMER

(Science, Technology, Engineering and Math)

7-Week-Long Enrichment Camps
June 15 – August 7, 2015

(no camp the week of June 29)

Adventures In Enrichment camps:
8:30 a.m. – 2:00 p.m. • $275 per week

High Velocity camps:
2:30 – 5:30 p.m. • $175 per week

Open to young people entering grades 2-8 in the fall of 2015

- COMPUTER PROGRAMING
- GEOMETRY BOOT CAMP
- TOY DESIGN CHALLENGE
- MAGIC OF ELECTRONS
- VIDEO GAME REVIEW
- MISSION TO MARS
- WEBSITE DESIGN
- RUBE GOLDBERG
- A BUG'S LIFE
- MINECRAFT
- ROBOTICS
- AND MORE!

Not all organizations with access to this distribution network are required to abide by anti-discrimination statutes. Parents are encouraged to contact the activity sponsor directly if they have questions.

SUMMER FUN WITH A BRAIN!

A NOTE FROM THE DEAN OF EDUCATION

It is with great pleasure that the UC Davis School of Education is offering a summer full of exciting enrichment camps for area youth. The School of Education is strongly committed to advancing STEM education through our research, teacher education programs and our STEM summer camps. We hope that you will take advantage of this opportunity to help your child expand his or her skills and have a lot of fun in the process.

A NOTE FROM THE CAMP DIRECTOR

I have been fortunate enough to have a career that allows me to create exciting and dynamic educational enrichment programs for young people. I have seen several of my program participants blossom into amazing, creative adults. I am proud to say that their summer enrichment experiences might have been their first exposure to a whole new skill area that has now become their professional career. Summer camps can make a difference!! Our philosophy is that all campers will be allowed to experience success as they challenge themselves to learn new skills. Our amazing line up of STEM related camps will help your child get a head start on these all important skills. We want to make sure that we keep the "fun" in learning. Please join us for a STEM-Tastic Summer on the UC Davis campus.

Andee Press-Dawson
Director of Community Programs
School of Education

HERE'S WHAT YOU'LL FIND AT UC DAVIS

Choose the camp based upon the campers' grade level in the fall of 2015. For campers attending both the regular camp and the High Velocity camp, there will be supervision provided between 2:00 and 2:30 at no additional charge. We will also provide an early morning program from 7:30-8:30. There will be an additional charge for this program. All of the challenges for our 2-4 grade campers will be based upon STEM related concepts and engineering design work. Everyone will be able to expand their interest and knowledge of STEM!!

June 15-19 • 8:30-2:00
Farmer Grady's Challenge, Grades 2-4
Magic of Electrons, Grades 4-6
Geometry Boot Camp, Grades 6-8
Mission to Mars, Grades 5-8
Programming with Scratch, Grades 5-8

High Velocity • 2:30-5:30
Video Game Review, Grades 5-8
Rube Goldberg, Grades 5-8

June 22-26 • 8:30-2:00
Earth Quake Technology Challenge, Grades 2-4
Geometry Boot Camp, Grades 5-6
Science and Technology II, Grades 6-8
Robotics, Grades 4-6
Website Development, Grades 5-8
Computer Programming with Math Applications, Grades 6-8

High Velocity • 2:30-5:30
Advanced Scratch, Grades 5-8
Vex/Fisher Techniques, Grades 6-8

July 6-10 • 8:30-2:00
The Great Toy Challenge, Grades 2-4
Science and Technology I, Grades 4-6
PreAlgebra Boot Camp, Grades 6-8
Robotics, Grades 6-8
Computer Programming With Robotics, Grades 6-8
Becoming a STEM Maker, Grades 5-8

High Velocity • 2:30-5:30
Basic Minecraft, Grades 4-8
Becoming a STEM Maker, Grades 5-8

July 13-17 • 8:30-2:00
Squeaky Clean Magnets Challenge, Grades 2-4
PreAlgebra Boot Camp, Grades 5-6
Advanced Competitive Robotics, Grades 4-8
Electronics with Ardunio, Grades 7-8
Flight and Space, Grades 6-8

High Velocity • 2:30-5:30
Intermediate Minecraft, Grades 4-8
To Infinity and Beyond Via The Algebra Train, Grades 5-6

July 20-24 • 8:30-2:00
Solar House Design Challenge, Grades 2-3
It's a Bug's Life, Grades 4-6
Algebra Boot Camp, Grades 6-8
Advanced Building and Programing Robotics, Grades 4-8
Aerospace and Digital Engineering, Grades 6-8

High Velocity • 2:30-5:30
Design and Modeling, Grades 6-8
Geometry Without Bounds, Grades 7-8

July 27-31 • 8:30-2:00
Helicopter Hang Time Exploration, Grades 2-4
Algebra Boot Camp, Grades 5-6
Personal Genomics-Exploring Human Genetics, Grades 6-8
Mission to Mars, Grades 5-8
Astro Engineering, Grades 6-8
Robotics and Digital Medial, Grades 6-8

High Velocity • 2:30-5:30
Code Academy, Grades 5-8
Becoming a STEM Maker, Grades 5-8

August 3-7 • 8:30-2:00
It's a Bug's Life, Grades 2-3
Personal Genomics-Exploring Human Genetics, Grades 4-6
Life Sciences: Biology and Chemistry, Grades 6-8
Robotics, Grades 4-6
Electricity, Circuits and Art!, Grades 5-8
Exploring Math with Robotics, Grades 5-6

High Velocity • 2:30-5:30
Advanced Minecraft, Grades 4-8
Personal Genomics, Grades 6-8

UCDAVIS
CAMPUS RECREATION AND UNIONS

UCDAVIS
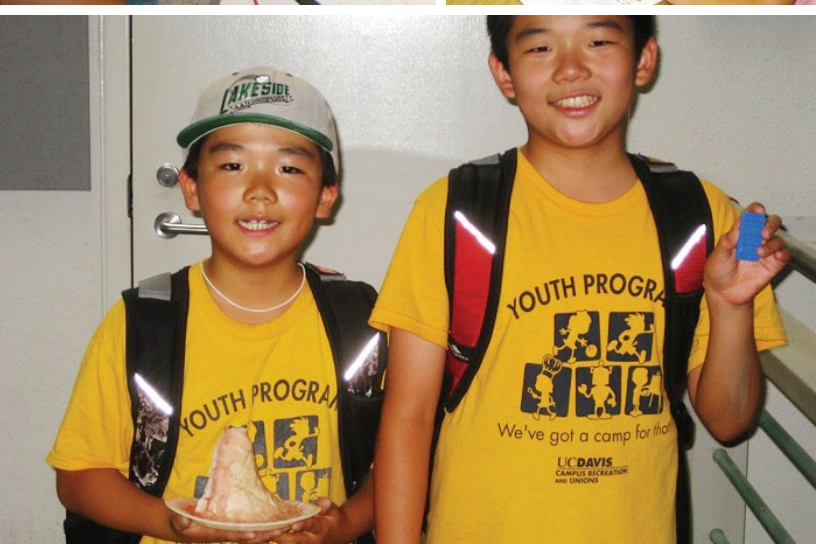**SCHOOL OF EDUCATION**

A STEM-TASTIC Summer

June 15-19, 2015

8:30-2:00

Farmer Grady's Challenge, Grades 2-4
Magic of Electrons, Grades 4-6
Geometry Boot Camp, Grades 6-8
Mission to Mars, Grades 5-8
Programming with Scratch, Grades 5-8

2:30-5:30 (High Velocity)

Video Game Review, Grades 5-8
Rube Goldberg, Grades 5-8

Farmer Grady's Challenge, Grades 2-4

How can a farmer protect crops when a hailstorm threatens? Students save the day using criteria and constraints to determine which design solutions can help Farmer Grady protect her crops. They will learn about weather-related hazards and how to make a claim about the merit of a design solution.

Magic of Electrons, Grades 4-6

Through hands-on projects, campers explore electricity, the behavior and parts of atoms and sensing devices. Campers will increase their knowledge and skills in basic circuitry design and examine the impact of electricity on the world around them.

Geometry Boot Camp, Grades 6-8

We are surround by objects with pleasing and useful shapes. We see arcs of circles in rainbows, hexagons in honeycombs and spheres in soap bubbles. This camp explores the fascinating concepts of Geometry and its useful applications. We will cover the important topics that the Greek geometer Pythagoras explored over 2500 years ago and are still used in our Geometry classes. Topics will include (but will not be limited to) geometric constructions with a compass and straight-edge, triangles, quadrilaterals, polygon, volume and area.

Mission to Mars, Grades 5-8

Plan our next Mission to Mars. At this enrichment camp, participants will work in teams to plan a mission to Mars. The campers will build and launch model rockets, design mars landers that can handle the impact of a crash landing without damaging cargo, and make their own LEGO® MINDSTORMS® robot that can automatically explore the red planet. In addition to making incredible rockets, landers and robots, campers will also take virtual tours of Mars, study past missions and discuss what we can learn from exploring Mars. The week will culminate when they present their design and convince the public (parents!) to invest in their ideas.

Programming with Scratch, Grades 5-8

Scratch is a programming language, created at the MIY Media Lab that children and adults alike can use to learn fundamental concepts of computer programming, simply by snapping blocks together to create projects such as animations, games, art, music, simulations and instruments of characters. Your child can come experiment with new ideas and bring their imagination to life. What will they create?

Video Game Review, Grades 5-8 (High Velocity)

This camp is for hardcore gamers who love to write. Campers will spend time playing online games and writing their own reviews that emulate the elements found in professional reviews. Students will engage in extensive digital writing/work procession skills including taking screenshots, inserting images, text formatting and more.

Rube Goldberg, Grades 5-8 (High Velocity)

A Rube Goldberg machine is a simple machine that accomplishes a simple task in as complicated a way as possible. Campers utilize their knowledge of simple machines and basic physics to demonstrate creativity and complexity while entertaining everyone observing it in action. If your child has ever played the game "Mouse Trap," they have used a Rube Goldberg apparatus.

A STEM-TASTIC Summer

June 22-26, 2015

8:30-2:00

Earth Quake Technology Challenge, Grades 2-4
Geometry Boot Camp, Grades 5-6
Science and Technology II, Grades 6-8
Robotics, Grades 4-6
Website Development, Grades 5-8
Computer Programming with Math Applications, Grades 6-8

2:30-5:30 (High Velocity)

Advanced Scratch, Grades 5-8
Vex/Fisher Techniques, Grades 6-8

Earthquake Technology Challenge, Grades 2-4

Build Safe is planning a new apartment building, but a recent earthquake has potential residents worried about safety. Students will learn about earthquakes and earthquake-resistant technologies and they compare models to improve designs for a new building.

Geometry Boot Camp, Grades 5-6

We are surround by objects with pleasing and useful shapes. We see arcs of circles in rainbows, hexagons in honeycombs, and spheres in soap bubbles. This camp explores the fascinating concepts of Geometry and its useful applications. We will cover the important topics that the Greek geometer Pythagoras explored over 2500 years ago and are still used in our Geometry classes. Topics will include (but will not be limited to) geometric constructions with a compass and straightedge, triangles, quadrilaterals, polygon, volume and area.

Science and Technology II, Grades 6-8

Campers will apply the design process and knowledge of simple machines for the construction of a Rube Goldberg apparatus. Future engineers follow the steps of the design process to help them create the best possible solutions to real world problems. In general, complex designs require more effort to develop than simple ones. Rube Goldberg designs are meant to show the unnecessary complexities in machines, which sometimes result from modern technology.

Robotics, Grades 4-6

During this week of camp, participants will design, build and program their own LEGO® MINDSTORMS® NXT robot. The camp will focus on the elements of design, and testing participants' ideas and redesigning their robots until it meets their highest standards. We will also have other engineering and design challenges throughout the week. Even if your child has no previous skills building or programming robots, he or she will be able to get a robot up and running the very first day. We will focus on presentation skills as campers show off their robot and demonstrate it to all of the parents on the last day of camp.

Website Development, Grades 5-8

This camp explore the world of website creation. Campers will start with "WYSIWYG" website creator and then move to creating their own websites in a text editor using HTML and CSS.

Computer Programming with Math Applications, Grades 6-8

Code like an engineer! Campers will be introduced to the working principles of computer programming. They will learn programming constructs, data types, expressions of operations and more. The week ends with student teams presenting how their comprehensive programs are developed to solve real world, game or math problems.

Advanced Scratch, Grades 5-8 (High Velocity)

This camp takes a deeper look into the programming concepts that were introduced in the first Scratch camp. Campers will explore the different data types and variables and learn how to use them for keeping track of information and developing a wider range of interactive applications. Campers will also look into decision making and how it can control the flow of programs, as well as examine repetition structures and how to use them.

Vex/Fisher Techniques, Grades 6-8 (High Velocity)

Campers will learn the concept of design and modeling using physical parts to reconstruct simple machines. Campers will participate in a creative process to build functional and applicable machines such as a windmill, pulley system, gear trains and more.

A STEM-TASTIC Summer

July 6-10, 2015

8:30-2:00

The Great Toy Challenge, Grades 2-4
Science and Technology I, Grades 4-6
PreAlgebra Boot Camp, Grades 6-8
Robotics, Grades 6-8
Computer Programming With Robotics, Grades 6-8
Becoming a STEM Maker, Grades 5-8

2:30-5:30 (High Velocity)

Basic Minecraft, Grades 4-8
Becoming a STEM Maker, Grades 5-8

The Great Toy Challenge, Grades 2-4

Sir Isaac's Toy Company wants to create a smushy, gooshy children's toy and needs help in design testing. Students identify materials based on their properties, evaluate competitors' products and design a superior product to sell.

Science and Technology I, Grades 4-6

Science impacts the technology of yesterday, today and the future. Campers apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill and discovering the properties of nano-materials.

PreAlgebra Boot Camp, Grades 6-8

With the right support and structure, we can empower every student to succeed in Algebra. In this camp, the instructor responds to the learners' needs with flexible strategies to ensure student success in their upcoming math class. This camp will include (but will not be limited to) evaluating algebraic expressions, writing expressions, integers and absolute value, rational numbers, solving equations, exponents, roots, and percentages.

Robotics, Grades 6-8

During this week of camp, participants will design, build and program their own LEGO® MINDSTORMS® NXT robot. The camp will focus on the elements of design, and will test participants' ideas and redesigning their robots until they meet their highest standards. We will also have other engineering and design challenges throughout the week. Even if your child has no previous skills building or programming robots, they will be able to get a robot up and running the very first day. We will focus on presentation skills as campers show off their robot and demonstrate it to all of the parents on the last day of camp.

Computer Programming With Robotics, Grades 6-8

Campers will be introduced to the working principles of computer programming and robotics with applications. Campers will learn how to program a robot with the user-friendly C/C++ interpreter, Ch. They will then learn to design, construct and program their own robotic system with a single controller. Afterwards campers extend their knowledge to create complex robotic systems with multiple controllers for various applications and challenges, such as a robot dance. The week ends with a mock-up STEM RoboPlay Challenge Competition.

Becoming a STEM Maker, Grades 5-8

Makers are those imaginative individuals who are willing to go out on a limb and create. This course will teach campers how to design and bring their own projects to life, with the help of some handy STEM topics and 3D printers. Campers will use and learn concepts revolving around design thinking and engineering. Projects will vary from high flying water rockets to sleek newly 3D printed phone cases and anything else in between. Kids are encouraged to bring their own ideas and interests into this camp.

Basic Minecraft, Grades 4-8 (High Velocity)

Minecraft is a game that allows kids to embark on a creative journey that results in towers, buildings, bridges, roads, tracks and whatever your child can imagine. Campers will bring their imagination to life in this virtual world. They will learn the necessity of survival skills and obtaining and using raw materials. They will also create worlds that, until now, have only existed in their imaginations. This is the introductory class and is recommended for first time users or users with limited experience.

Becoming a STEM Maker, Grades 5-8 (High Velocity)

Makers are those imaginative individuals who are willing to go out on a limb and create. This course will teach campers how to design and bring their own projects to life, with the help of some handy STEM topics and 3D printers. Campers will use and learn concepts revolving around design thinking and engineering. Projects will vary from high flying water rockets to sleek newly 3D printed phone cases and anything else in between. Kids are encouraged to bring their own ideas and interests into this camp.

A STEM-TASTIC Summer

July 13-17, 2015

8:30-2:00

Squeaky Clean Magnets Challenge, Grades 2-4
PreAlgebra Boot Camp, Grades 5-6
Advanced Competitive Robotics, Grades 4-8
Electronics with Ardunio, Grades 7-8
Flight and Space, Grades 6-8

2:30-5:30 (High Velocity)

Intermediate Minecraft, Grades 4-8
To Infinity and Beyond Via The Algebra Train,
     Grades 5-6

Squeaky Clean Magnets Challenge, Grades 2-4
Pete, the owner of Pete's Pet Shop, is looking for a way to quickly clean fish tanks without disturbing the fish. Students explore the power of magnets, and they combine their best ideas as a team to make, test and redesign a prototype solution for Pete.

PreAlgebra Boot Camp, Grades 5-6
With the right support and structure, we can empower every student to succeed in Algebra. In this camp, the instructor responds to the learners' needs with flexible strategies to ensure student success in their upcoming math class. This camp will include (but will not be limited to) evaluating algebraic expressions, writing expressions, integers and absolute value, rational numbers, solving equations, exponents, roots and percentages.

Advanced Competitive Robotics, Grades 4-8
In Advanced Competitive Robotics you will put your creative engineering skills to the test as you work to complete building, navigation and programming missions with your NXT Mindstorm robots. In addition to the many individual challenges, campers may choose to compete with each other to build the fastest and strongest robots in the daily head-to-head competitions. Campers will also get the opportunity to meet robotics competition teams and take a special tour of Schilling Robotics in Davis during the week. If you already know the basics of designing, building and programming, then this camp will be a great place to work with other young robotic engineers in a fun, friendly and competitive atmosphere.

Electronics with Ardunio, Grades 7-8
This camp uses the UC Davis C-STEM Youth Summer Camp curriculum to introduce participants to electronics and sensors using Arduino. Campers will learn how to program Arduino with a user friendly C/C++ interpreter, Ch, and Arduino IDE. They will also learn basics of electronics and how Arduino responds to sensors using simple and enlightening examples. Then campers will team up to design and build more fun stuff using their imaginations.

Flight and Space, Grades 6-8
The exciting world of aerospace comes alive through Flight and Space. Campers explore the science behind aeronautics and use their knowledge to design, build and test an airfoil. Custom-built simulation software allows students to experience space travel.

Intermediate Minecraft, Grades 4-8 **(High Velocity)**
This camp is recommended for campers who have completed the first camp or have some experience with Minecraft. We will be utilizing Redstone and focusing on the exploration piece of Minecraft. Campers will learn how to survive amongst the harshest conditions, mine deep into the world's core, and build more complex machines and tools for various purposes.

To Infinity and Beyond Via The Algebra Train,
Grades 5-6 **(High Velocity)**
This class is designed for accelerated students, grades 5–6, to expand students' sense of the usefulness of algebra in daily life. We will integrate algebra with concepts from geometry, statistics and probability. We will use these with other disciplines, such as art, biology, history, music and beyond.

A STEM-TASTIC Summer

July 20-24, 2015

8:30-2:00

Solar House Design Challenge, Grades 2-3
It's a Bug's Life, Grades 4-6
Algebra Boot Camp, Grades 6-8
Advanced Building and Programing Robotics,
    Grades 4-8
Aerospace and Digital Engineering, Grades 6-8

2:30-5:30 (High Velocity)

Design and Modeling, Grades 6-8
Geometry Without Bounds, Grades 7-8

Solar House Design Challenge, Grades 2-3

How can a builder make a house warm when the sun is shining and keep the house warm when it is not? Students learn about energy conversion as they work in teams. The teams make budget decisions about windows and flooring material in a home design as they build a passive solar house model to test, analyze and redesign.

It's a Bug's Life, Grades 4-6

Does your child love insects? Yes? Good, because insects are everywhere—from your garden to the tops of mountains to your dog's fur. These fascinating creatures will amaze your child when he or she gets the chance to study them up close! UC Davis is the number one place to study entomology (insect science). The School of Education is partnering with the UC Davis Bohart Museum of Entomology to offer this camp. It will be an active, hands-on camp that will explore many different ways to be an insect scientist.

Algebra Boot Camp, Grades 6-8

Algebra is the most important math concept a student can learn. Your success in all higher mathematics comes back to the foundations you learned in your Algebra I class. This camp will build the foundation to make you excited about learning math. We will cover everything from the basics to fine-tuning problem-solving skills. Participants will discover how Algebra relates to real world applications.

Advanced Building and Programing Robotics, Grades 4-8

In advance building and programming we will look into the more intricate programming options offered by the NXT programming software. The camp will also teach and challenge you to build more complicated designs with all of the Technic Legos that are available for the NXT Mindstorm robots. Campers will test their programming and building abilities through a series of instruction, demonstration, discovery and challenge.

Aerospace and Digital Engineering, Grades 6-8

Aerospace infomercial production, learning how to create and use a Prezi and designing and digitally creating an artificial limb are the highlights of this camp. Campers will learn how to use and explore the engineering platform Autodesk to design virtually anything. In addition, green energy and the need for conservation will help students understand and virtually model how to live in space and how to power a "Green" car.

Design and Modeling, Grades 6-8 (High Velocity)

Campers will learn how to use Autodesk, a software program that is utilized by the architecture, engineering, and construction, manufacturing, media and entertainment industries. The program allows for the model construction of anything. For example, civil engineers use a program called AutoCAD to map out road and bridge specifications.

Geometry Without Bounds, Grades 7-8 (High Velocity)

This class is designed for the accelerated students, grades 7–8, to help students develop an awareness of and appreciation for the role of geometry has played in our lives. Discovery topics will include how and where geometry was first used, Euclidean and constructional geometry and similarities with forestry.

A STEM-TASTIC Summer

July 27-31, 2015

8:30-2:00

Helicopter Hang Time Exploration, Grades 2-4
Algebra Boot Camp, Grades 5-6
Personal Genomics-Exploring Human Genetics, Grades 6-8
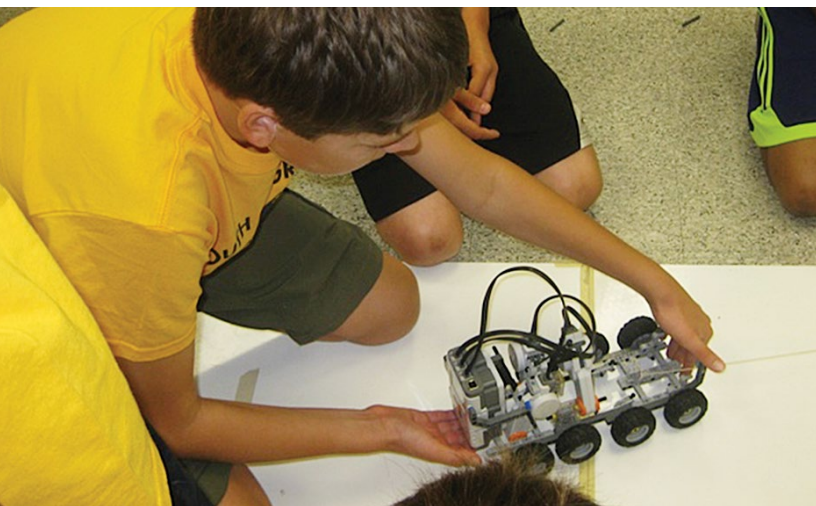Mission to Mars, Grades 5-8
Astro Engineering, Grades 6-8
Robotics and Digital Media, Grades 6-8

2:30-5:30 (High Velocity)

Code Academy, Grades 5-8
Becoming a STEM Maker, Grades 5-8

Helicopter Hang Time Exploration, Grades 2-4

Faster is usually better, but with Helicopter Hang Time Exploration, landing slowly is the key. Children learn about fair tests to evaluate the strengths and weaknesses of different designs of reusable paper helicopters. Then, as a team, children design, build and test their own helicopters to land even slower.

Algebra Boot Camp, Grades 5-6

Algebra is the most important math concept a student can learn. Your success in all higher mathematics comes back to the foundations you learned in your Algebra I class. This camp will build the foundation to make you excited about learning math. We will cover everything from the basics to fine-tuning problem-solving skills. Participants will discover how Algebra relates to real world applications.

Personal Genomics-Exploring Human Genetics, Grades 6-8

People come in many shapes and sizes with different traits, such as height, eye color and the ability to tolerate specific medicines. All human traits result from a combination of the genetic code and environmental influences, such as diet and exercise. Personal genomics is the field of study that looks at the influence genetic variations have on human traits. In this camp, participants will join us for a fun week of hands-on activities in the classroom and the computer lab, learning about human genetics and the field of personal genomics.

Mission to Mars, Grades 5-8

Plan our next Mission to Mars. At this enrichment camp, participants will work in teams to plan a mission to Mars. The campers will build and launch model rockets, design mars landers that can handle the impact of a crash landing without damaging cargo and make their own LEGO® MINDSTORMS® robot that can automatically explore the red planet. In addition to making incredible rockets, landers and robots, campers will also take virtual tours of Mars, study past missions and discuss what we can learn from exploring Mars. The week will culminate when they present their design and convince the public (parents!) to invest in their ideas.

Astro Engineering, Grades 6-8

The physics of flight will be utilized in this camp to design, build and launch handmade bottle rockets. Students will have one test flight and will then revise and re-launch based on the parameters of distance traveled, velocity and trajectory. We will also be modeling what it is like to drive a vehicle in space.

Robotics and Digital Media, Grades 6-8

This camp will introduce campers to the working principles of computer programming, robotics, digital media and video editing. Campers start with the basics of how a computer works and then learn computer programming in the C/C++ interpreter, Ch, to control a single robot and multiple robots for robot dance. Campers explore video editing and film production by creating a script, artwork, musical score and robotic choreography to be combined in a short video that can be submitted to the C-STEM RoboPlay Video Competition. The week ends with campers' teams presenting their projects and videos with robotics in the context of global problems.

Code Academy, Grades 5-8 (High Velocity)

Code academy is an educational website and online interactive platform that offers free coding classes in six different programming languages including Python, PHP, jQuery, JavaScript and Ruby as well as markup languages including HTML and CSS. This camp is where students can learn and teach the language of the future: computer language.

Becoming a STEM Maker, Grades 5-8 (High Velocity)

Makers are those imaginative individuals who are willing to go out on a limb and create. This course will teach campers how to design and bring their own projects to life, with the help of some handy STEM topics and 3D printers. Campers will use and learn concepts revolving around design thinking and engineering. Projects will vary from high flying water rockets to sleek newly 3D printed phone cases and anything else in between. Kids are encouraged to bring their own ideas and interests into this camp.

A STEM-TASTIC Summer

August 3-7, 2015

8:30-2:00

It's a Bug's Life, Grades 2-3
Personal Genomics-Exploring Human Genetics,
    Grades 4-6
Life Sciences: Biology and Chemistry, Grades 6-8
Robotics, Grades 4-6
Electricity, Circuits and Art!, Grades 5-8
Exploring Math with Robotics, Grades 5-6

2:30-5:30 (High Velocity)

Advanced Minecraft, Grades 4-8
Personal Genomics, Grades 6-8

It's a Bug's Life, Grades 2-3

Does your child love insects? Yes? Good, because insects are everywhere—from your garden to the tops of mountains to your dog's fur. These fascinating creatures will amaze your child when he or she gets the chance to study them up close! UC Davis is the number one place to study entomology, or insect science. The School of Education is partnering with the UC Davis Bohart Museum of Entomology to offer this camp. It will be an active, hands-on camp that will explore many different ways to be an insect scientist.

Personal Genomics-Exploring Human Genetics, Grades 4-6

People come in many shapes and sizes with different traits, such as height, eye color and the ability to tolerate specific medicines. All human traits result from a combination of the genetic code and environmental influences, such as diet and exercise. Personal genomics is the field of study that looks at the influence genetic variations have on human traits. In this camp, participants will join us for a fun week of hands-on activities in the classroom and the computer lab, learning about human genetics and the field of personal genomics.

Life Sciences: Biology and Chemistry, Grades 6-8

We explore what effects enzymes have in pineapples and how those enzymes effect other molecules, create growth media for bacteria and harvest microbes, extract DNA from a strawberry, and explore the world of cells under a microscope. This camp is packed with enriching activities that all campers will enjoy.

Robotics, Grades 4-6

During this week of camp, participants will design, build and program their own LEGO® MINDSTORMS® NXT robot. The camp will focus on the elements of design and testing participants' ideas and redesigning their robots until it meets their highest standards. We will also have other engineering and design challenges throughout the week. Even if your child has no previous skills building or programming robots, he or she will be able to get a robot up and running the very first day. We will focus on presentation skills as campers show off their robot and demonstrate it to all of the parents on the last day of camp.

Electricity, Circuits and Art!, Grades 5-8

It's easy to build an AM radio, a doorbell, a screaming fan and other fun circuits. Just snap together the electronic components, learn about electricity, and then make fun stuff, such as paper circuits, wearable circuits, LED ornaments and campers' very own creations.

Exploring Math with Robotics, Grades 5-6

Curious about the applications of mathematics? Explore mathematical concepts through practical applications with hands-on and fun robotics activities with user-friendly C/C++ interpreter, Ch. Campers will explore number lines, fractions, measurement, variables, data conversion, lines, proportions and linear relations. The week ends with camper teams presenting how math concepts are used in real world applications such as controlling a robot.

Advanced Minecraft, Grades 4-8 (High Velocity)

This camp is recommended for campers who have extensive knowledge of Minecraft and/or have completed the Intermediate Minecraft camp. In this camp we will learn the engineering behind creating proper landscapes, building a code and creating rail that interconnects complex systems of mines. This camp is also meant to complete a final building or structure built to specification that is created in class or at home to display.

Personal Genomics, Grades 6-8 (High Velocity)

People come in many shapes and sizes with different traits, such as height, eye color and the ability to tolerate specific medicines. All human traits result from a combination of the genetic code and environmental influences, such as diet and exercise. Personal genomics is the field of study that looks at the influence genetic variations have on human traits. In this camp, participants will join us for a fun week of hands-on activities in the classroom and the computer lab, learning about human genetics and the field of personal genomics.

MEET OUR AMAZING CAMP INSTRUCTORS

We are pleased to share that all of our instructors are credentialed teachers with extensive experience in their respective STEM subject area. Each camp of 25 campers will also have a counselor. Our dynamic and caring counselors are all UC Davis students. Our staff works hard to make sure everyone has a very fun and educational experience!!

- **Roland Aichele**
- **Parto Aram**
- **John Bullock**
- **Faith Flomo**
- **Eric Garber**
- **Jessica Gillung**
- **Stefano Mannara**
- **Jeremy Waddell**
- **Carmen Wright**
- **James Shimek**

ADDITIONAL SERVICES

In order to accommodate everyone's busy schedule, we will offer extended care both before and after the regular camp day. Here's what we offer:

7:30–8:30 a.m. – Extended Care, $20 per week
2:00–6:00 p.m. – Extended Care, $50 per week
2:30–5:30 p.m. – High Velocity Camps, $175 per week

Supervision will be provided from 2:00–2:30 p.m. for campers enrolled in both the full-day camp and the High Velocity camp.

PLAN YOUR STEM-TASTIC SUMMER

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Make Sure You Make It a
STEM-TASTIC SUMMER!

TO REGISTER:

http://cru.ucdavis.edu/youthprograms

IF YOU NEED TO REACH US:

For registration related questions, call:
(530) 574-4304

For all other questions regarding Adventures
In Enrichment, call Andee Press-Dawson at:
(530) 574-8906
or email apressdawson@ucdavis.edu

For additional information, go to
http://education.ucdavis.edu/adventures-enrichment