

# Crockett High School Science Course Selection Guide



Foundation + Endorsement	
Grade	Science Course
9th	Biology
10th	Chemistry
11th	Advanced Science
12th	Advanced Science

Foundation + STEM Endorsement	Need 5 science credits & must take Chemistry <u>and</u> Physics
9th	Biology
10th	Chemistry
11th	Physics/UT On Ramps Physics
12th	Advanced Science
5 <sup>th</sup> Credit	Advanced Science

## Current 9<sup>th</sup> Graders:

Sitting in:	Go to:
Biology/PAP Biology/Einstein Biology	Chemistry/PAP Chemistry/Einstein Chemistry

*\*Ready for a challenge? Talk to your science teacher about doubling up Chemistry and AP Biology!*

## Current 10<sup>th</sup> Graders:

Sitting in:	Go to:
Biology/PAP Biology/Einstein Biology	Chemistry/PAP Chemistry/Einstein Chemistry
Chemistry/PAP Chemistry/Einstein Chemistry	Advanced Science
Chemistry/PAP Chemistry/ Einstein Chemistry (STEM Endorsement/STEM College Major)	Physics/UT OnRamps Physics + Other Advanced Science (Recommended- you will need 5 science credits!)

## Current 11<sup>th</sup> Graders:

Sitting in:	Go to:
Physics/UT OnRamps Physics	Advanced Science
Physics/UT OnRamps Physics (STEM Endorsement/ STEM College Major)	ONE or TWO Advanced Science Courses if needed for 5 science credits
Advanced Science	Advanced Science
Advanced Science (STEM Endorsement/ STEM College Major)	Physics/UT OnRamps Physics (If lacking credit) + Other Advanced Science if needed for 5 Credits

## Advanced Science Options (See back for course descriptions!)

Honors/CTE	Dual Credit and Advanced Placement		Electives
Forensic Science	UT OnRamps Physics <i>*Algebra 2 credit required (Recommended for College STEM Majors)</i>	UT OnRamps Chemistry *NEW! <i>*Chemistry Credit Required</i>	Physics
Anatomy and Physiology	UT OnRamps Geoscience	AP Biology	Aquatic Science
UT Research & Design Internship (Double Block-Apply with Ms. King)	Engineering <i>*Optional UT Dual Enrollment</i>		
Principles of Biotechnology <i>*NEW!*</i>			

Honors/CTE	Dual Credit and Advanced Placement		Electives
<p><b>Forensic Science</b></p> <p>Forensic science is when scientific methods are applied to legal situations, often during the investigation of a crime. This course focuses on science as a tool for evaluating evidence. You will also learn about types of evidence NOT analyzed scientifically. This interaction between science and law has a profound impact on society.</p>	<p><b>UT OnRamps Physics</b></p> <p><b><u>*Completion of Algebra 2 Required</u></b> <i>(Recommended for College STEM Majors)</i></p> <p>Mechanics, Heat and Sound introduces big ideas in physics, such as Newtonian mechanics. Taken together, the topics reinforce the general idea that the behavior of many objects in the world can be described precisely with simple mathematics. Students will practice problem-solving and analyzing physical situations.</p>	<p><b>AP Biology</b></p> <p>Solving crimes with DNA gel electrophoresis, making bacteria glow, and giving plants "cancer" are a few of the exciting experiences offered. By designing labs and participating in high level discussion, students gain an in depth understanding of biological systems through the lens of evolutionary history. <i>Students doing well in 9<sup>th</sup> grade biology are encouraged to take this in 10<sup>th</sup> grade!</i></p>	<p><b>Physics</b></p> <p>Wiring electricity for a model home and building marble launchers, Rube Goldberg machines, and roller coasters are some of the exciting projects offered in this conceptual physics course.</p>
<p><b>Anatomy and Physiology</b></p> <p>A&amp;P explores how our bodies are put together and work. It will help you understand your own body, and any future healthcare worker, cosmetologist, food technologist, athletic trainer, tattoo artist, massage therapist, yoga instructor, phlebotomist, physical/ occupational therapist, body builder... will benefit from the labs and dissections in this course.</p>	<p><b>UT OnRamps Geoscience</b></p> <p>This course is an introduction to geosciences, with an emphasis on environmental problems. The geosciences are at the heart of many challenges facing humans in this century: topics like climate change, sustainability, energy resources, land use, and natural hazards. Any student passionate about the earth and all its creatures will enjoy this lab-based course.</p>	<p><b>UT OnRamps Chemistry *NEW!*</b></p> <p><b><u>*Completion of Chemistry Credit Required</u></b></p> <p>Students have opportunities to visit college chemistry departments, laboratories, and lectures. We also have unique and engaging labs such as splitting water into hydrogen gas to run a miniature car, using pencils and a 9-volt battery to perform a redox reaction, and using a cell phone app to determine the absorption of light to calculate the color of a solution.</p>	<p><b>Aquatic Science</b></p> <p>Aquatic Science is for any student who has a love for beaches, lakes or anything related to water. Students will learn about Texas aquatic ecosystems and oceans around the world. There are field trips in both fall and spring. The world is your oyster!</p>
<p><b>UT Research &amp; Design Internship</b> <i>(Double Block-Apply with Ms. King)</i></p> <p>UT Research and Design is a double-blocked off-site internship at UT Austin. Crockett students are mentored by a UT scientist and learn cutting edge lab techniques. Students participate in individual projects and may become published. You must apply for this internship with UT.</p>	<p><b>Engineering</b></p> <p><i>*Optional UT Dual Enrollment</i></p> <p>Can you build a pinhole camera or design a bridge that will withstand an earthquake? The Engineer Your World classroom is a place where students engage in engineering practices in a project-based environment. Student learning is scaffolded over a series of design challenges that require the application of engineering principals and relevant STEM concepts.</p>		
<p><b>Principles of Biotechnology *NEW!*</b></p> <p>Biotechnology focuses on applications of molecular biology. Students learn how to perform DNA extractions, gel electrophoresis, blotting, and DNA sequencing and analysis. This class is project based and students will compete in the Crockett and Austin Regional Science Fair.</p>			

	Advanced Placement (AP)	Dual Credit (DC)	Dual Enrollment (UT On Ramps Program)
<b>Description</b>	The AP Program allows students to take college-level courses and the related AP exam, to potentially earn college credit while still in high school.	Dual Credit allows students to simultaneously earn high school and college credit by successfully completing Austin Community College (ACC) courses.	Dual Enrollment allows students to earn high school and potentially earn college credit while still in high school.
<b>College Credit</b>	College credit is granted when students pass the AP examination. Individual colleges and universities, not the College Board nor the AP program, grant course credit and placement.	College credit is awarded when the student passes the course.	Students receive weighted high school credit when they successfully complete the course. Students also receive college credit if they qualify for and pass the college portion of the course.
<b>Teachers/Instructors</b>	Courses are taught by high school teachers trained by The College Board.	Taught by college instructors and/or high school teachers who serve as adjunct professors	Taught by high school teachers trained by University of Texas professors
<b>College/University Acceptance</b>	Accepted throughout the nation. Usually requires a score of 3 or higher on AP exam. See individual college/university for their policy.	Accepted at public colleges and universities in Texas, and many private institutions. Check with your individual college for academic requirements.	Guaranteed to be accepted at any public university in Texas. Accepted at most private universities. Check with your individual college for academic requirements.