
SCIENCE!!!
Future Freshmen and Sophomores

Science Course Offerings at SME

Fresh-man	Biology	Biology Honors	Honors Biology students will be expected to answer higher order level of thinking questions that require analysis, synthesis, and evaluation. The course also moves at a faster pace. It is **recommended** that students be in at least geometry. *Prerequisites are given in italics.*			
Sopho-more **Junior** **Senior**	Physical Science	Chemistry 1 *Completion of Geometry or teacher rec*	Chemistry 1 Honors *Completion or concurrent enrollment in Honors Algebra 2 or teacher rec*	Physics 1 *Geometry*	Physics 1 Honors/AP/IB *Precalculus or concurrent enrollment in College Algebra/Trig or Precalculus H or teacher rec*	Intro to Biotechnology *Biology 1*
Junior **Senior**	Environmental Education 1 *Biology 1 with "C" or better or teacher rec*	Environmental Education 2 *Environmental Education 1 with "C" or better or teacher rec*	Environmental Science AP *Biology 1 H, Chemistry*	Global Issues I&II (2 semester long classes) *Biology 1*	Biology 2 AP/IB *Biology 1 with "B" or better and previous or concurrent enrollment in Chemistry 1*	
	Human Anatomy and Physiology *Biology 1*	Forensic Science 1&2 *Algebra 1, Biology and/or Chemistry*	Chemistry 2 AP/IB *Chemistry 1 with "B" or better, Algebra 2 or teacher approval*	Physics 2 AP/IB *Completion of Physics 1H/AP/IB or teacher rec*	Meteorology (semester long class)	Zoology (semester long class) *Biology*

Decisions to make for Future Freshmen:

Biology and Biology Honors

Honors Biology students will be expected to answer higher order level of thinking questions that require analysis, synthesis, and evaluation. The course also moves at a faster pace. It is recommended that students be in at least geometry.

Decisions to make for Future Sophomores:

- Physical Science
- Chemistry
- Honors Chemistry
- Physics 1
- AP Physics year 1
- Forensic Science

Physical Science

- This course is a study of fundamental physics and chemistry principles.
  - Fall semester is introduction to chemistry
  - Spring semester is introduction to physics
- It provides a foundation for future science courses.
- It also satisfies one of the requirements for graduation, but not one for the Kansas Board of Regents Schools.

Why would you choose Chemistry?

- Are you planning on attending a 4-year university?

- Would you like to develop important skills and discipline. that will help you gain meaningful employment in the future?

University

Successfully completing a year of chemistry will help provide some of the discipline and problem solving skills that will help you obtain these goals

Physical Science First

Then..

Chemistry!

Taking Geometry Next year

Taking Algebra 2 (or higher Next year

Start!

Will it involve some time and effort? Sure. If you give that effort; however, the benefits will be worth your time.

How do I know if I'm ready?

- You are most likely to be successful:
  - Geometry with a C or better
  - Enrolled in Algebra 2.
  - Consistently complete and turn in homework assignments.

Prerequisites: Completion of Geometry (or teacher rec)
Teaches Fundamental University and Life Skills:

- Problem Solving
- Study and Organizational skills
- Grit
- Oh…yeah and some Chemistry (Composition of matter and how it changes)

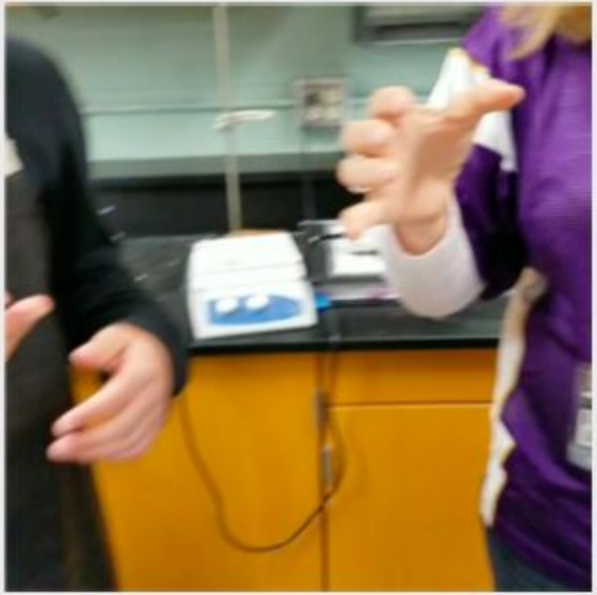
How hard is it? If your attendance is good and you complete all assignments to the best of your ability, it's not too bad.

Future majors/careers: Chemical engineering, chemist, doctor, biologist, hazardous waste consultant, explosives expert/manufacture, rocket scientist
Crossover skills: Problem-solving, application of math, visualization of problems, communication, collaboration with others, use of technology

Should I Take Honors Chemistry 1??

- Honors Chemistry 1 covers a few more topics a bit more deeply than Chemistry 1. The same general areas are taught in both, but Honors Chemistry 1 students should expect that they'll need to learn more about them. An example would be in kinetics: General chemistry students will study Le Chatelier's principle, while honors chemistry student will explore simple rate laws.
- Honors chemistry labs are somewhat more student-directed, while general chemistry labs are more guided. The thinking here is that honors chemistry students require less guidance for inquiry activities.

Chemistry 1 Honors



- Are you going to be enrolled in Algebra II Honors or an even higher level of math?
- Are you interested in a STEM related career?
- Are you a motivated student?
- Do you love honors credit for classes?
- If you answered yes to any of these questions, Chemistry 1 Honors will be a good fit for you!
- If you have questions, talk to your counselor or e-mail susanhallstrom@smsd.org

Physics

- Take this if you are really good in math and plan on being an engineer, doctor, computer science major, or architect

- Most students wait to take this until they’re juniors or seniors.

Forensic Science 1 (semester)

Prereq: Biology 1 (with a C or higher) Chemistry is recommended to have completed or taking concurrently.

This class is the hands-on application of science to the law. The focus is on problem-solving, designing experiments, and testing and making conclusions based on empirical evidence. Students will be expected to work in teams to theorize, design experiments, research forensic methodologies, synthesize information, and make conclusions based on their own empirical evidence.

How hard is it? Being a hands on/analysis class, students will be expected to master skills and be able to perform those skills at higher levels. If you are just looking for a science credit, probably more work than you expect. Topics Covered: Intro to Law, Evidence Collection, Crime Scene Analysis, Fingerprints, Blood Spatter Analysis, Trace Evidence, Crime Scene (Final Project)

Future majors/careers: crime scene investigators, police officers, etc. This class can be linked to Project Blue Eagle Signature Pathway.

Crossover skills: Problem-solving, application of all sciences, visualization of problems, communication, collaboration with others, use of technology

Forensic Science 2 (semester)

Prereq: Forensic Science 1, Biology 1 (with a C or higher) Chemistry is recommended to have completed or taking concurrently.

This class is the hands-on application of science to the law. The focus is on problem-solving, designing experiments, and testing and making conclusions based on empirical evidence. Students will be expected to work in teams to theorize, design experiments, research forensic methodologies, synthesize information, and make conclusions based on their own empirical evidence.

This is a continuation of Forensic Science 1 - Topics Covered: DNA, Hair and Fiber, Ballistics, Toolmarks and Impressions, Human Remains, Entomology, Drugs and Toxicology. There are also opportunities for guest speakers as well as a crime scene.

Future majors/careers: crime scene investigators, police officers, etc. This class can be linked to Project Blue Eagle Signature Pathway.

Crossover skills: Problem-solving, application of all sciences, visualization of problems, communication, collaboration with others, use of technology