

## SCIENCE, MATH, COMPUTER SCIENCE HOUSE-EXTENDED DAY

SMCSH has two different program certificates. The more prestigious certificate is the "Certificate of Achievement with Research." The second option is a "Certificate of Achievement" which does not have a research component. Students must successfully complete at least BC Calculus to obtain either of the SMCSH certificates.

	9	10	11	12
<b>ENGLISH</b>	Honors English 9	Honors English 10	<ul style="list-style-type: none"> <li>AP Language and Composition</li> <li>Honors English 11</li> </ul>	AP English Literature
<b>SOCIAL STUDIES</b>	Honors US History	<ul style="list-style-type: none"> <li>AP National State &amp; Local Government</li> <li>Honors National State &amp; Local Government</li> </ul>	<ul style="list-style-type: none"> <li>AP World History</li> <li>Honors Modern World History</li> </ul>	
<b>SCIENCE</b>	<ul style="list-style-type: none"> <li>Advanced Science 1—Physics*</li> <li>Advanced Science 2—Chemistry*</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Science 3—Earth Science*</li> <li>Advanced Science 4—Biology*</li> </ul>	Students must complete a total of 6 semesters of SMCS electives** during their junior and senior years.	
<b>RESEARCH</b>	<ul style="list-style-type: none"> <li>Research and Experimentation for Problem Solving 1 A/B*</li> </ul>	<ul style="list-style-type: none"> <li>SMCS Principles of Engineering*</li> </ul>	<ul style="list-style-type: none"> <li>Research Design* and Research Project A*</li> </ul>	Research Project B
<b>COMPUTER SCIENCE</b>	<ul style="list-style-type: none"> <li>Fundamentals of Computer Science A/B*</li> </ul>	<ul style="list-style-type: none"> <li>Algorithms and Data Structures A/B*</li> </ul>		
<b>MATHEMATICS</b>	<ul style="list-style-type: none"> <li>Magnet Geometry*</li> <li>Magnet Precalculus A/B* or Magnet Functions A/B*</li> </ul>	<ul style="list-style-type: none"> <li>Magnet Precalculus A/B</li> <li>Magnet Precalculus C/D</li> <li>Analysis 1 A/B or AP Calculus BC</li> </ul>	<ul style="list-style-type: none"> <li>Magnet Precalculus C/D</li> <li>Analysis 1 A/B or AP BC Calculus</li> <li>Vector Calculus A/B or Multivariable Calculus A/B</li> <li>AP Statistics* or Applied Statistics*/Linear Algebra</li> </ul>	<ul style="list-style-type: none"> <li>Analysis 1 A/B or AP Calculus BC</li> <li>Vector Calculus A/B or Multivariable Calculus A/B</li> <li>Linear Algebra</li> <li>Discrete Math</li> </ul>
<b>ELECTIVES</b>	<ul style="list-style-type: none"> <li>Physical Education</li> <li>World Language—Spanish, French</li> <li>Fine Arts</li> </ul>	<ul style="list-style-type: none"> <li>Physical Education/Health</li> <li>World Language—Spanish, French</li> <li>Fine Arts</li> </ul>	<ul style="list-style-type: none"> <li>Physical Education/Health</li> <li>World Language—Spanish, French</li> <li>Fine Arts</li> </ul>	<ul style="list-style-type: none"> <li>Physical Education/Health</li> <li>World Language—Spanish, French</li> <li>Fine Arts</li> <li>Internship</li> </ul>

▮ Courses may be linked and scheduled sequentially.

\* Course is required for the SMCS Certificate of Achievement

\*\* Research Project B, Cellular Physiology, Optics, Organic Chemistry, Thermodynamics, Quantum Physics, Analytical Chemistry, Biochemistry, Intro. to Physical Chemistry, Intro. to Genetic Analysis, Marine Biology, AP Chemistry, AP Biology, AP Physics B or C, Analysis of Algorithms, Computer Graphics, Software Design, Networking, Robotics, Materials Science, Writing Mobile Applications, Intro to Cyber Forensics/Security, Programming languages