



**ACS ATHENS AUTHENTIC COLLEGE-LEVEL COURSES**

At ACS Athens, we are committed to broadening the range of choices and opportunities available for our students, so that they can craft an academic program that best meets their needs, and which challenges them to expand their interests and open their minds to the world. To this end, we have crafted a number of honors-level, interdisciplinary courses unique to our school, which are structured to meet curriculum standards, with performance measured by a breadth and quality of assessments, equal to those of our AP and IB courses.

**Advanced Mathematics**

*Advanced Mathematics is a course for students who have completed AP Calculus and/or IB HL Mathematics by their senior year. The course is entitled "Knot Theory and Applications in DNA Research and Physics." Offering an interdisciplinary, topical approach to the study of advanced mathematical concepts, the course is designed for students seeking to develop their mathematical knowledge beyond the scope of the traditionally most challenging high school mathematics programs.*

In addition to the IB Diploma Program and array of AP courses that we offer, we have designed, and are in the process of implementing, a special **ACS Scholar's Diploma** (to be fully implemented by the 2014-15 school year), which allows students to design a program that draws on our IB and AP offerings, while requiring them to complete a core of three honors-level interdisciplinary courses unique to our school. These authentic college-level courses are designed to allow students to explore ideas and concepts across disciplinary borders.

**Humanities    Leadership Studies    The Heart of Mathematics**

**Humanities**

*The two-year Humanities program is an ACS Athens institution. Innovative when introduced into the school program thirty years ago, and cited by the Carnegie Commission for Excellence in Education as a model of academic innovation and excellence, it has continued to evolve and challenge successive generations of ACS Athens students through a combination of rigorous academic study, a rich fieldwork component, extensive writing, performance and project-based assessment activities. The course focuses on particular historical periods, such as Classical Greece, Byzantium, the Middle Ages in the West and in the Islamic World, the Renaissance and 19<sup>th</sup> and 20<sup>th</sup> Century Europe. Each period is studied through the great works that its people produced. Literature, art, history, music, philosophy and theology are studied with concern for the great themes and questions that surface repeatedly: What makes us human? How can we live a good life? How do humans relate to their gods? How does belief shape individual lives, the lives of a culture? What is a just society?*

**Two new courses, Honors Leadership Studies and The Heart of Mathematics, introduced in the 2010-2011 school year, have been structured according to the same principles of cross-disciplinary study and methods of inquiry-based learning that underlie the Humanities program.**

**Leadership Studies**

*This honors-level course is based on the premise that we best understand the concept of leadership and develop leadership skills through a liberal arts approach that draws on many disciplines: history, politics, psychology, economics, ethics, and communication. At the heart of the course is a belief in the centrality of ethical decision making in the exercise of leadership and the fundamental belief that the goal of leadership is active citizenship in service to the communities to which we belong. The course is designed to provide students with a wide variety of experiential, hands-on and academic learning experiences in which they can explore the concept of leadership and discover the leadership potential within themselves.*

**The Heart of Mathematics**

*This honors-level course, designed for students preparing for further study in the humanities and the arts, is an invitation to explore some of the greatest ideas of humankind – ideas comparable to the works of Shakespeare, Plato, and Michelangelo, but ideas lying in the realm of mathematics: number theory, infinity, fractals, chaos, uncertainty, topology, making meaning from data, probability and decision making, among many others. You will discover mathematics is an artistic endeavor requiring imagination and creativity, developing your powers of critical thinking and impacting the way you view the world. The prerequisites are an open mind, a willingness to put aside preconceived prejudices of mathematics, and a willingness to make and learn from mistakes.*