The 2018 Arkansas Governor's School Curriculum

Students attending AGS are selected on the basis of their abilities and interests in a particular intellectual discipline or field known as Special Aptitude Development (Area I).

In keeping with the School's aim of developing competencies in the use of theory to understand, manage, and integrate knowledge, each student also pursues classroom work and reading in two other areas: General Conceptual Development (Area II) and Personal and Social Development (Area III). The curricula in Area II and Area III are identical for all students.

Faculty

Area I: Arts — Fred Boosey, Coordinator

Choral Music
Adam Stanley
Daniel De Togni

Drama
April Gentry-Sutterfield
Lauren Lusk

Instrumental Music
Tom McDonald, Conductor
Rick Dimond
Larry Jones
Candis Sunday

Visual Arts
Kimberly Kwee
Jason McCann

Area I: Academics — Stacy Key, Coordinator

English/ Language Arts
Trisha Cowen
Kathy Manus
Andrew Nolley
Gabby Vidal-Torreira

Natural Sciences
Christie Birdsong
Matthew Bradsher
Matt Hibbs
Katie Parson
Warren Sconiers
Timothy Trawick

Social Sciences
Brad Aaron
Mark Elrod
Hans Hacker
Melissa Juneau

Mathematics
John Anglin
Stacy Key
Lars Seme

Area II: General Conceptual Development

Lacey Thacker, Coordinator
Whit Barringer
Alan Elrod
Scott Hairston
Andrea Lively
Ryan Parson
Phillip Spivey
Christopher Weaver

Area III: Personal and Social Development

Debbie Hibbs, Coordinator
Fred Boosey
Emily Bradley
Richard Gobble
Phillip Melton
Madison Sewell
Spencer Sutterfield
Chad Terrell

Area I: Arts

Drama

April Gentry-Sutterfield and Lauren Lusk

The 2018 Arkansas Governor's School Drama students will explore several foundational components of contemporary performance, examine the role of performance within society, and develop their own artistic voices as story-tellers and performers. The students should be prepared to engage themselves intellectually, artistically, physically, and collaboratively while they refine skills like focus, leadership, team work, commitment, and communication.

Choral Music

Adam Stanley and Daniel De Togni

The Choral Music program will broaden and strengthen students' musical knowledge through experiences of rehearsing, performing, vocal technique, analyzing, and discussing a wide range of choral repertoire. While a significant portion of the class will be committed to preparing works for performance at Arkansas Governor's School, students will also gain exposure to a variety of topics relating to music theory, history, and choral traditions from several Musical eras. Students will also

be exposed to more recent trends in choral music as well as experimental music from the 20th century. An additional facet of the course aims to introduce singers to interdisciplinary performance with students and faculty in Instrumental Music, Drama and Visual Arts.

Instrumental Music

Tom McDonald, Rick Dimond, Larry Jones, and Candis Sunday

The AGS 2018 students in Instrumental Music will be involved in rehearsing and performing works of prominent 20th and 21st century composers. Emphasis is placed on music from this period, styles of composing, and circumstances surrounding the birth of these styles. Issues such as color, texture, melody, harmony, rhythm, and meter will be addressed in reference to each style and work. Excellence in performance is something that individuals and groups always strive for; however, it is the process of learning music and understanding the creative process of composing music in a specific 20th or 21st century style that is of prime importance in our performing ensemble. This knowledge and expertise will allow students to share with students in other Area I disciplines. The discussions and lectures in Perspectives feature faculty and student presentations, discussions, theory styles, and listening sessions which deal with significant music and musical trends. The combination of ensemble performance and Perspectives classes at AGS is aimed at opening the students' minds to the incredibly vast world of music, both to its composers and its styles.

Visual Arts

Kimberly Kwee and Jason McCann

The focus of the Visual Arts program at AGS is to develop student artwork in terms of concept and content. Students will be encouraged to explore the process behind their artistic product in a variety of techniques and materials guided by instruction and critique of art and theory through the ages. The hope is that students will acquire an understanding of how working artists achieve consistency and continuity in a large body of work.

Area I: Academics

English/Language Arts

Monstrous! - Dr. Trisha Cowen

This course will explore the dynamics of cultural hauntings through examining monster and other supernatural manifestations in literature, film, and folklore. Course themes will include the dual nature of good versus evil, the victim/izer, isolation, advancing technologies, enlightenment, cultural hauntings, and the distribution of power. A key question explored in the course will be: what do we fear and why? Exploring the supernatural as natural will allow us to view the monster as a representation of a culture and their terrors, and how their fears conform or diverge from today's horrors. We will study how monsters have evolved through the ages in order to better understand our own "monsters."

"This I Believe" Personal Essay – Kathy Manus

In this course, students will develop their critical thinking skills in order to recognize and articulate their own beliefs, as well as recognize and accept the beliefs of others. Students will accomplish this through an understanding of personal writing characteristics including authentic voice (Truman Capote), narrative coherence (Jeannette Walls), and communical relevance (Elie Wiesel and Dave Cullen). By the end of this course, students will be able to formulate and write a personal credo, actively listen to and respond to others, illustrate their personal beliefs, identify philosophies in popular culture, and identify their personal philosophy.

Developing Media Literacy in a "Post-Fact" World – Andrew Nolley

In this class, students will examine different forms of media and how to decode the content produced or shared by these various outlets; simply put, how to read media. The primary focus of this class will be how to pick through and decode media that give us news. Students will learn how to analyze news sources for credibility; identify and analyze articles, images, and videos that exacerbate the "fake news" epidemic; discuss the benefits and detriments of social media; and acknowledge the persuading effects of advertising and propaganda.

Legends of Spain - Dr. Gabby Vidal-Torreira

In this course, the students will explore several legends in translation written by one of the most renowned writers of Spain's 19th century, Gustavo Adolfo Bécquer. The students will also learn about the romantic literary movement in Spain, why it is important and how legends flourish while it lasts. This course will use the legends to explore Spain's history, myths and culture, and help the students understand the cultural and historical importance that legends have in society. At the end of the course, students will write their own 1-page legend and explain how it relates to what they have learned.

Mathematics

Mathematics and Aviation – John Anglin

This class will examine some practical applications of mathematics as they apply to aviation. Some examples that will be presented include a mathematical understanding of the forces of flight, trigonometry in navigation, and an introduction to electrical systems theory. Students will also build and fly their own solid fuel rockets, taking measurements and studying various design aspects of rockets. There will also be critical thinking exercises applied to various scenarios an aviator would be expected to encounter. The focus of this class is not to produce professional aviators, but rather to demonstrate a practical application of mathematics to a tangible real world environment.

Probability and Statistics: A Study of Uncertainty - Stacy Key

Life is full of uncertainty. However, most people try their best to plan, predict and prepare for the future. Some people rely on chance, fate, and luck in their predictions, while others base their findings on logic and scientific methodology. Our study will be based on this logical and scientific

approach. Probability has been defined as "the branch of science concerned with the study of mathematical techniques for making quantitative inferences about uncertainty." Most historians consider this branch of science as beginning with the work of Fermat and Pascal in the early 1600s, but the use of this science has grown exponentially over the last few decades. This course will examine techniques and concepts widely used in probability and statistics from both a theoretical and practical perspective. Examples from the "real world" in the areas of insurance, politics, finance, engineering, medicine, meteorology, and management will be used to add relevance and practicality to our study.

Number, Axioms, and Infinity - Lars Seme
In this class we will discover how it is that we know the results of mathematics. We all learn in grade school that a + b = b + a. But there are infinitely many instances of this so how can we be sure this is true without checking all of them? We will cover the axiomatic method in mathematics and its use to construct the whole numbers, integers, and rationals, as well as how we know their various properties. We conclude with a discussion about ways in which we can treat infinity as a number.

Natural Sciences

Prevention, Diagnosis, and Rehabilitation - Matt Bradsher
We will be looking at the anatomy and physiology of the human body with an emphasis on function, injury, and recovery. Students should develop an understanding of the complex interactions between the brain and body, as well as the structures that make up the body.

Engineering Design Challenge - Katie Parson
This class combines the best aspects of hands-on learning and 21st Century STEM skills in a makerspace-style environment. Students will learn the engineering design process then apply their creativity and critical thinking skills as they compete in a series of engineering challenges. Challenges may include topics such as bridge building, rocket design, Rube Goldberg machines, and trebuchets.

Thinking About Scientific Thought - Tim Trawick
How do we arrive at conclusions in science? How does mathematics guide our thinking? What support do we need to confirm, disprove or reshape a scientific law or theory? How does theory inform other "truths" or "policies" that we use to guide our lives? This course will focus upon scientific thinking, fundamental principles, and standard models that describe the way physicists and astronomers understand the universe. Explanatory power, logical coherence, and empirical corroboration are benchmarks to evaluate scientific models that we use to describe the world around us. Interesting topics of discussion may include foundations of physics; cosmology (age, history & content of the universe); the interface between religion, science and philosophy; the background and birth of quantum theory and relativity; and challenges of applying science in modern technology and policy.

Bugs and You – Dr. Warren Sconiers

This is a broad entomology and science course that introduces students to the insect orders and their influence on humans. We will cover topics such as insect diversity, agricultural pests and beneficials, and the spread of disease. These topics will also include plant physiology and evolution to provide a more complete understanding of the science behind these interactions. These topics will help students see how vast our world is, as well as the information to make informed decisions about gardening, agriculture, and interactions with potential disease vectors. Insects are some of the most ancient organisms and are approximately half of all species described on the planet. Learning about them will inform students of how a large portion of the natural world operates. This course will also follow the scientific process and how discoveries in microbiology, ecology, and entomology have shaped our culture and the natural world. Students will see how the development of science has changed our world for better or worse so they can understand just how influential science can be. Students will also have the opportunity to create insect collections at museum curation standards.

Social Sciences

Investigating Culture - Brad Aaron

What does it mean to be human? What is culture? How do we deal with the challenges of increasingly multicultural connected societies? How do we make intelligible a concept such as "cultural preservation"? These are the main questions that will animate this course. Together we will approach the concept of culture from a critical perspective, drawing mainly on anthropological understandings of this notion. We will explore definitions of culture, methods for the study of culture, theories of multiculturalism, and theories and practices of cultural preservation. In class we will work through some important texts in the anthropological and philosophical literature and learn how to become keen observers of the world around us with a goal of being able to interpret human behavior through the lens of sociocultural anthropology. We will ground our theoretical discussions in real world examples and exercises both inside and outside of the classroom.

The ABCs of International Relations – Dr. Mark Elrod

International relations (IR) is a subfield of political science and is studied from both a theoretical and practical perspective. In IR, the two-most widely used theories (paradigms) are realism (*realpolitik*) and liberal-idealism. Realism understands the international system as anarchical in nature with nation-states seeking to acquire the power they need to protect their interests in a hostile world. Liberal-idealism holds that nations and individuals are cooperative in nature and often work together to achieve common goals in terms of security, trade, and resources. To that end, liberal-idealists believe that international institutions such as the United Nations and the European Union demonstrate and strengthen global cooperation and integration. In this course at AGS, we will examine the core assumptions of these two paradigms and apply them to real-world problems and situations. Students will also learn key concepts (A-Z) that can be used to illustrate the theoretical world of realists and idealists.

Law, Power, and … Justice – Dr. Hans Hacker
Legal scholars study law as the use of power to justify social arrangements. In this course, we will explore the rudiments of law and challenge prevailing ideas about how law functions in our democratic constitutional republic. Students will explore topics ranging from how to read and brief a case to theories of justice, legal pragmatism, realism, and critiques of law's effectiveness for ordering a just society that provides liberty for citizens to shape their own lives and destinies. Judges must balance competing interests while seeking what society understands as a fair and just resolution to conflict. To accomplish this, judges must interpret constitutions, laws, and codes. This inevitably leads to the privileging of some interests over others. We explore how judges arrive at resolutions by reading cases such as Palsgraf v. Long Island Railroad (a case about whether the railroad had a duty to avoid harm caused by an explosion) and Riggs v. Palmer (a case about whether a man who murdered his grandfather can inherit his grandfather's money). We will read treatises on law, its function in society, and what tools judges use to balance interests and interpret legal texts. We conclude the course with a moot court simulation on an issue that courts have never clearly decided. Students will read a set of fictitious case facts, and read five actual cases. Several students will then argue the fictitious case before a moot court made up of the other students in the class.

Changing the World through Social Entrepreneurship – Melissa Juneau
What is Social Entrepreneurship? Is it a new idea? What are the realities of starting and managing Social Enterprises? Students will examine how social enterprises are making positive impacts in our communities and around the world. This class focuses on a series of student driven activities, simulations, guest speakers, and podcasts to encourage critical thinking and discussions among students. Students will examine various economic concepts and reflect on the importance of trade and other factors affecting the global market economy, from technical concepts such as exchange rates to more endemic challenges of the free market, such as poverty, sustainability or inequality. Students will research social and environmental challenges and develop business plans solving these issues. This course offers a pedagogical wide range of activities to give students an opportunity to engage and personalize their own learning experience.

Area II: General Conceptual Development

Area II focuses on thinking—on the ways we think, on the assumptions that underlie our own thinking and the thinking that takes place within the various disciplines, on cutting edge developments that have influenced our thinking about truth and knowledge, and on means of thinking more effectively.

Since Area II brings together students from all eight Area I disciplines, instructors can help students explore connections and differences between the disciplines and help them understand various approaches to truth and reality.

Area II classes also draw on speakers, films, and readings as subjects for discussion; students interact directly and frequently with leading figures in a variety of fields and learn to watch films, not simply as forms of entertainment, but as works of art open to critical examination.

Area II begins by introducing students to thinking about thinking, teaching them to be more conscious of their assumptions, the soundness of their logic, and different points of view based on different assumptions. Students express their opinions but also learn about the importance of evidence, logical thinking, and clarity of definition and expression.

As the course progresses, they confront new ideas and new ways of thinking, and they address complex moral and ethical questions, not in order to learn what they should think, but in order to learn how to base decisions and actions on an informed consideration of appropriate issues and evidence.

By the end of the course we hope they will have a clearer understanding of their assumptions and of the thinking process in general. We also hope that they will understand other points of view and have an awareness of complex issues, as well as an appreciation for well-informed and solidly supported ideas.

Finally, we hope that they will be excited about thinking.

Area III: Personal and Social Development

Area III is designed to foster the personal and social development necessary for the students to benefit fully from their Area I and Area II classes and the comprehensive cultural and social events of the AGS program. The concept of Area III emerged from the need of students to process and discuss information and experiences. This makes learning more active and meaningful and enables students to develop accountability for their own educational, social, and cultural environment. By integrating all the academic classes and events, the curriculum of Area III strives to provide an opportunity for the students to see the importance of taking personal responsibility for one's own ideas and for one's participation in a democratic society. The students learn that ideas do have consequences and that "good thinking" means looking at the implications of ideas as well as the assumptions behind them. Area III provides a forum for actively exploring civic responsibility; it seeks to inspire a student's understanding of his or her own personal potential and then to impress upon the student the value of character, leadership, integrity, insight, and compassion, not only within their own communities, but in society at large. It is within this framework that students explore curricular issues such as social theory and responsibility, theories of intelligence, conflict and stress management, psychological and personality theory, goal setting, and service. Area III emphasizes a basic understanding and application of psychology and sociology as it relates to the development of student potential.

Area III classes provide an opportunity for students to respond to featured films, speakers, cutting-edge topics from each of the disciplines, special events, and even current events, with the goal of strengthening social development. Students are encouraged to participate in classroom interactions, small group discussions, simulations, role playing, and other learning strategies. Participation in these activities stimulate an understanding of community involvement and decision-making. In addition, readings, surveys, personality inventories, and optional journal writing encourage personal growth.