The 2017 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
Andy Morgan
Daniel De Togni

Drama
April Gentry-Sutterfield
Lauren Lusk

Instrumental Music
Tom McDonald, Conductor
Rick Dimond
Whitney Hammons
Larry Jones

Visual Arts
Kimberly Kwee
Jason McCann

Area I: Academics — Stacy Key, Coordinator

English/ Language Arts
John Andrews
Mark Barnes
Brian Hunt
Jessica Pitchford

Natural Sciences
Matthew Bradsher
Katie Parson
Warren Sconiers
Timothy Trawick

Social Sciences
Mark Elrod
Melissa Juneau
Rapheal Lewis
Kondwani Phwandaphwanda

Mathematics
John Anglin
Stacy Key
Lars Seme

Area II: General Conceptual Development
Jim Rush, Coordinator
Nick Brasovan
Alan Elrod
Andrea Lively
Ryan Parson
Phillip Spivey
Lacey Thacker
Christopher Weaver

Area III: Personal and Social Development
Debbie Hibbs, Coordinator
Fred Boosey
Richard Gobble
Phillip Melton
Winston Meyer
Madison Sewell
Spencer Sutterfield
Chad Terrell

Area I: Arts

Drama

April Gentry-Sutterfield and Lauren Lusk

The 2017 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

Dr. Andy Morgan and Daniel De Togni

The Choral Music program will broaden and deepen students' musical knowledge through diverse experiences of rehearsing, performing, analyzing, and discussing vocal repertoire. While a significant portion of the class will be committed to preparing works for performance at AGS events, students will also gain exposure to a variety of topics relating to music theory, history, choral traditions outside the Western art music canon, and recent trends in choral music performance and composition. 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, Whitney Hammons, Larry Jones

The AGS 2017 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

Poetry as Survival - John Andrews

In his 2002 book of poetics, Gregory Orr argues that "There is something special about poetry and about lyric poetry in particular, but it's not what most people think. It's not that poetry is written by very intelligent or very sensitive people and is appreciated only by others of equal intelligence and sensitivity. What's special is quite the opposite of this elitist notion of poetry. What's special is that lyric poetry is written down or composed in every culture on the planet at this moment, which means something like 1,000 different cultures and 3,000 different languages. All cultures on the globe have a conception of the personal lyric. What's more, members of all these cultures feel the need to write it down or compose it aloud as song or chant, whether they are from tribes in the equatorial rainforest rain forests or Inuit and Eskimo in the frozen Arctic; whether they live in Paris or Buenos Aires or Beijing." With this in mind, we will approach the work of various contemporary and canonical poets this summer with these questions in mind: "How is this poem an act of survival?" "What does poetry offer us as tool for understanding and interpreting the world around us?" "Why do so many people turn to poetry as an art form?" From here we will move into constructing our own poems to better understand the work of being a poet, a reader, and a person trying to better understand the world.

Interactive Story-telling – Mark Barnes

In this course, we will analyze several works of multimedia and interactive communication in order to understand what they say about our relationships to ourselves, to each other, and to the world around us. Texts will include fashion, spoken word poetry, comic books, and video games, each with a focus on personal and communal identity. In order to better understand these works, we will be utilizing a variety of analytical frameworks including semiotics, cultural studies, and psychoanalytic criticism.

From Hieroglyphics to Emojis #TechnologicalMedia – Dr. Brian Hunt

In what some bloggers are calling a "post-text" world, new ways of reading and writing are changing how we think. Since humans first began to paint signs on cave walls, new technologies and media for storing and sharing information have enabled us to be where we are today. Technological media has always been evolving, and the tools we use to transmit and store ideas are not simply tools; they alter the way we perceive and interact with the world. Engaging with hieroglyphics, cave paintings, emojis, visual poetry, the book, cryptography, cartography, tweets, texts and Instagram, among others, students of this class will consider how different media have enabled us to tell different stories. Through a deeper understanding of the history of technological media, students will consider the networked mind while exploring their own thoughts on and beyond the confines of the physical page.

Flash Fiction - Jessica Pitchford

In Flash Fiction, our focus will be on the briefest of fiction forms: the short-short story (also known as fast fiction, flash fiction, or micro fiction, among others). These extremely short stories, which can vary in length but are on average no more than 750 words, are increasingly popular, if difficult to achieve—a real creative challenge. This course both introduces participants to the art of the short-short story and prepares them to participate in traditional workshops and even fiction slams. In-class activities include reading discussions, individual and group writing exercises, as well as peer workshops. The ultimate goal is to get students reading one of the most progressive forms of fiction being written and published today and trying their hand at creating their own.

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.

The Mathematics of Infinity - Lars Seme

Though infinity is not actually a number in the usual sense, in this class we will discuss the different ways infinity can be approached mathematically. We will consider what it means to add the terms of an infinite sequence of numbers, to get an answer from an arithmetic problem that is larger than any real number, and what it means to say that a set contains infinitely many members. In order to do so, we will introduce the idea of axiomatic mathematics and the concept of proof – what it means to be certain in mathematics. For example, we all know that for any two numbers $a + b = b + a$. We will discuss how we might prove this fact without needing to explicitly consider the infinitely many special cases.

Natural Sciences

Prevention, Diagnosis, and Rehabilitation - Matt Bradsher

In this course, we will be examining the human body. We will take a look at how the body works, both as a unit, and as individual pieces. Then we will take those lessons and explore how the outside world affects us and what our responses are.

Science and Society- Katie Parson

Students will examine the intersection of science and society by examining how scientific advancements and social justice interact. We will examine times when human rights were abused or ignored for scientific research or exploration, debate contemporary issues in bioethics and environmental justice, and explore case studies from across the country and state of Arkansas.

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

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.

Introduction to Sociology - Dr. Rapheal Lewis

This course covers a specific methodology centered around critical thinking, while at the same time engaging the patterns of thought of the early sociologist. It has been always a matter of curiosity how people get along with others, what they do for a living, and who and how people select leaders. Over the years there have been countless observations about human behavior. This course attempts to examine some of these in terms of content and consequences. Each student will be required to complete at least two requirements.

1. They must select one of the early sociologists and discuss their philosophy and methodology and the reasons for their choice. All of this should be prepared and presented in an essay or some other form, based on the students' creativity.
2. A research design or a plan to investigate a sociological problem at some time in the future must be developed.

Developing Nations – Kondwani Phwandaphwanda

Students will explore political systems in selected developing countries and examine how governments within those political systems serve their people to help them improve their lives. Discussion will focus on a number of areas including education, employment, health, food

production and security, and civic education. Students will also discuss how international development impacts the lives of people living in poor countries.
Selected readings will be used for lectures and class discussion. Different activities will be used to accommodate the learning styles of students to give each student a chance to maximize his/her learning process. Students will also be encouraged to conduct basic research for their own further understanding of material discussed in 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.