

# The 2015 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

Andrew Morgan  
Rachel Schrag

#### Drama

April Gentry-Sutterfield  
Candrice Jones

#### Instrumental Music

Tom McDonald, Conductor  
Rick Dimond  
Gerry Gibson  
Larry Jones

#### Visual Arts

Kimberly Kwee  
Jason McCann

### Area I: Academics

Stacy Key, Coordinator

#### English/ Language Arts

John Andrews  
Wesley Beal  
Dan Kostopulos  
Jessica Pitchford

#### Natural Sciences

Matthew Bradsher  
Salomon Itza  
Stephen Robertson  
Blake Whitt

#### Social Sciences

Adam Frank  
Rapheal Lewis  
Kondwani Phwandaphwanda  
Peggy Scranton

#### Mathematics

Stacy Key  
Stacy O’Brien  
Lars Seme

## **Area II: General Conceptual Development**

Mark Elrod, Coordinator

Revis Edmonds

Leah Hadder

Andrea Lively

Jim Rush

Phillip Spivey

Lacey Thacker

Christopher Weaver

## **Area III: Personal and Social Development**

Phillip Melton, Coordinator

Fred Boosey

Richard Gobble

Debbie Hibbs

Elizabeth Martin

Spencer Sutterfield

Kelly Taylor

Chad Terrell

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## **Area I: Arts**

### **Drama**

#### **April Gentry-Sutterfield and Candrice Jones**

The 2015 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**

**Andrew Morgan and Rachel Schrag**

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, Gerry Gibson, Larry Jones**

The AGS 2015 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 1 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**

**Jason McCann and Kimberly Kwee** 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**

**Practical Poetics - John Andrews**

From The Kings of Leon shaking "the poet and the beat" to Eminem claiming to not be much of a poet but knows that someone told him "to seize the moment," popular culture views poetry and poets as revered things. If popular music, film, and tv all view poetry as something elevated and

separate, then what is the role of poetry today? At the same time, Alexandra Petri claimed in the Washington Post "poetry is dead." If this is true, what is the point of poetry today? What is poetry today? This course will interrogate and attempt to answer these questions by analyzing the work of contemporary poets such as Karyna Mccglyn, Richard Siken, Michael Dickman, and others to approach and define contemporary poetry. From here we will then create contemporary poetry through the techniques and theories presented and offer up our own texts as examples of contemporary poetics.

### **Introduction to Cultural Studies - Wesley Beal**

What is culture? The term is vexing, often described as among the hardest words to define in the English language. There are several possible approaches to this subject, ranging from anthropology's study of customs and practices to sociology's reliance on statistics, but for the purposes of this course we will interrogate culture as a *text* for our own analysis. In other words, we will be applying our literary tools toward the interpretation of culture. The questions we investigate on a daily basis will sweep broadly under the ever-broad rubric of culture, observing the various and often conflicting uses and meanings of the culture concept. We will start by exploring the very ideas of culture and literature, then familiarize ourselves with Barthes's and Geertz's approaches to the culture-text, and along the way study specific examples of those texts—for example, campus architecture, commercial advertisements, theme parks, and propaganda. Students will complete the course by designing and presenting a cultural studies lesson plan of their own.

### **Contemporary Short Story - Dan Kostopulos**

Contemporary Short Story has two objectives. First, students will discuss the nature and history of the short story as a form of fiction and then read a variety of stories published during the last forty years by familiar British and American authors such as Martin Amis, Richard Ford, Alice Walker, Anne Beattie, Kazuo Ishiguro and Junot Diaz, as well as several writers who are perhaps less familiar to young readers such as Lydia Davis and Reinaldo Arenas. Specifically, students will examine how these short stories reflect the changing dynamics of contemporary American and British culture with respect to significant historical events, gender, race, class, nationality, and a variety of other social and cultural issues. Students will read the stories in class, analyze their fictional elements, as well as identify the dominant ideas they feel the authors are trying convey, and then discuss their own interactions with the text in an attempt to understand their subjective and varying responses to different works of fiction.

### **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**

### **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 History of Logic and Proofs - Stacy O'Brien**

In Ancient Greece, Aristotle and the Stoics created the first standards for deductive reasoning. Mathematicians then built on these standards to create the universal language of logic and proof. This course will follow the path taken by logicians and mathematicians from Aristotle to the present day as we examine both practical applications of logic in computer science and theoretical uses for logic in proving mathematical truths. We will study syllogisms, Boolean algebra, tautologies and paradoxes, truth tables, deductive and inductive methods of proof. We will develop an understanding of how mathematics has developed over time and how we can use logic effectively in mathematics and in daily life.

### **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, including the arithmetic of the infinite. Along the way, we will consider the construction of the Natural, Rational, Real, and Complex Numbers and their properties. For example, we will define what we mean by addition and use this to prove why  $1+1 = 2$ . The class will conclude with the treatment of infinity using both Cardinal and Ordinal Numbers.

## **Natural Sciences**

### **Prevention, Diagnosis, and Rehabilitation - Matt Bradsher**

Designed to cover a variety of topics from the view of health professionals, with emphasis on prevention, diagnosis, and rehabilitation. Students will examine what "healthy" means, and build plans to modify their own lifestyles to promote quality and longevity of life. The course will then shift toward human anatomy and common dysfunctions, as well as develop skills to prevent and/or identify sickness, injury, and debility.

### **Physics Behind Medical Machines-(PBM2) - Salomon Itza**

You may think that medicine and physics are two different disciplines and have little or nothing in common. However, when you look at the medical machines used in hospitals around the world, you can see they are related and that physics is important in the medical field. Students enrolled in this course will learn about the basic physics concepts behind some medical machines (MRI, CAT, and PET) and their use in performing medical exams. For the most part the course will be conducted in an inquiry-based format, with a variety of activities performed in class and outside of class; giving students the opportunity to explore and learn the physics concepts.

### **-omics: the next chapter - Stephen Robertson**

The study of the genome gained popularity and public awareness in the late 20<sup>th</sup> century following the advent of the polymerase chain reaction. Advancing into high-throughput methods, detailing entire genomes takes a fraction of the time previously required. However, as biologists we are acutely aware that DNA describes only part of the story. Most of our genetic information is considered "junk DNA", some coded regions are never expressed, and many of our genes are heavily and complexly regulated. So how do our genes define who and what we are? This course focuses on three primary avenues of molecular studies: Transcriptomics, Proteomics, and Metabolomics. Given a definition of sample, at any one point the transcriptome is the full assemblage of RNA, the proteome is the full complement of proteins, and the metabolome is the complete set of small molecules. By exploring the products of DNA transcription, mRNA translation, and protein activity we can describe the interaction between environment and DNA at the cellular, tissue, organ, and organismal levels in a way previously impossible. We will discuss current methodologies used to isolate and identify these components (requiring that we delve into the major subjects of Natural Sciences: chemistry, physics, and biology), current research and theory, application, and what the future may hold for these studies.

### **Looking Inward - Blake Whitt**

A good scientist must understand how his/her tools of measurement work; otherwise any obtained data is meaningless. Strange, then, that the tool used in all measurement (our brain) is in many ways still mysterious. If we wish to further understand phenomena in nature, isn't it necessary to first understand ourselves? This course will focus primarily on the explanation of the neurobiological underpinnings of human behavior, emotion, and perception. We will begin with an

overview of the cellular and molecular components of mammalian nervous systems and progress into discussions regarding human behaviors while challenging the conventional understanding of concepts like consciousness, love, culpability, and free will.

## **Social Sciences**

### **Expressing Your Self: Folklore, Folklife, and Expressive Culture - Adam Frank**

When we hear the term “folklore,” oral transmission of myths or tall tales may come to mind. Over the last few decades, however, folklore has come to include a wide variety of cultural practices, ranging from food culture to public festivals, lowrider clubs in Austin to martial arts in China, mask making in Mexico to cowboy culture in Texas. Together, these practices make up what is now often referred to by scholars as “folklife” or “expressive culture.” In this course, each class will begin with the exploration of a question or concept related to human expressive cultural practices. For example, we might start with the question “How do we differentiate between the natural and the supernatural?” Or “How do you know you’re a member of a group?” Or “How do you gain entry into a community of practice?” Day to day, students taking “Expressing Your Self” will engage in group discussion about short readings, film clips, and concepts the instructor introduces in class. The other major component of the class is the sharing of “folk” skills and practices, both within the class and between the class and the larger AGS community. To connect to that community, AGS students, faculty, and staff will be invited to participate in a weekly 4:10 “sharing circle.” The topics of each week’s sharing circle will be publicized through the AGS community calendar, and anyone is welcome to attend and share. Topics may include gaming, knitting, music, storytelling, foodways, physical arts (e.g. martial arts), performing arts, and so on. The circle can include more than one topic at each weekly meeting. The circles will provide an opportunity to explore the depth and breadth of skills and knowledge within the AGS community.

### **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 student 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.

### **Words and other Weapons in War and Debate - Dr. Peggy Scranton**

This course explores how words impact not just who wins or loses political conflicts but also the meaning of winning and losing. Our purpose is to examine how words influence “who gets what, when, and how,” which is Harold Lasswell’s famous definition of politics. Words can enhance or diminish a speaker’s message; they may enlighten some and confuse others; political labeling can help or hurt a person or group or cause. Language used in political speech conveys multiple meanings and creates differential outcomes as some listeners hear threats while others hear promises. Following the insights of Murray Edelman, who pioneered the study of politics as spectacle and the political uses of language, we will examine how selected words call some to action and reassure others that they need not act. Considering war in Clausewitz’s view as a continuation of politics by other means, we will examine the use of force for achieving military and political objectives. We will consider and compare two types of conflict: 1) armed conflict during the Peloponnesian War and more recent military operations, and 2) nonviolent movements and unarmed struggles against brutal dictators. We will analyze these conflicts by examining well-known speeches, other textual records, and video documentaries; students will hold discussions and debates and write analytical assignments.

## **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.