



2017 Missouri Scholars Academy List of Minors

Minor: ... And Then You're Dead

Have you ever wondered what would happen if you REALLY got swallowed by a whale, jumped into a black hole, were hit by a meteorite, or were in an elevator and the cable broke? What would it feel like to stand on the surface of the sun or jump in a hole that went all the way to China? What would it be like to be buried alive or hit by a penny dropped from the tallest building on Earth? Have you been asking questions like these your whole life? Are you tired of getting lame answers like, "you would probably die?" Then this is the class for you! We will use REAL SCIENCE to predict and explain what would happen if you were in these and many other deadly situations.

Minor: The Blues, Jazz and the American Experience: Thriving on a Riff

"Jazz is not just music, it's a way of life, it's a way of being, a way of thinking." - Nina Simone. The blues and jazz were the first musical forms to emerge exclusively on American soil. Their emergence from the unique cultural blending of late 19th and early 20th century New Orleans mirrors the great "melting pot" of America, and their history is implicitly tied to the history of its country. The blues and jazz quickly jumped out of the musical staff and into literature, art, and even philosophy. Students in this minor will study and listen to the blues and jazz, tracing their history and influences among other artistic disciplines, discussing how they differ from other musical forms, and investigating how jazz performance and improvisation can help one navigate the notes, high, low, blue, and everywhere in between, of life's grand melody. No prior musical experience required!

Minor: Breaking Bad Laws This course analyzes the laws and Supreme Court cases every citizen should understand. It is an examination of legal rights, the limits of laws, and common legal misconceptions. We will identify sources of law to answer why we are allowed to do what we do, the consequences of breaking laws, and how citizens engage in protest and dissent. We will discuss what happens if we break laws prohibiting certain actions, what happens if we fail to exercise our rights, and actions we can take as citizens to change our laws. Throughout the course we will focus on the legal issues that most affect teenagers.

Minor: Comics vs. The World: Superheroes, zombies, and talking mice. Comic books are out there, but what impact have they had on us, our cultures, our world?! Reading some of the most highly praised works in the field, the course will investigate how comics can and have been used to strive for authentic storytelling, essays, nonfiction, and even finding (capital T) Truth, ultimately asking: can comics help shape a better world for us all? But what about the superheroes? Of course. Will we look at comics in film? Yep. What about webcomics? You know it. We will critically analyze a variety of comics, including abstract, manga, picto-essays, and memoirs. We will also write comics, apply new theories, and by the end you might even find out how all of us can be superheroes.

Minor: Intro to Combating Mind Control We encounter arguments on a daily basis without fully realizing it. Arguments, explicitly or implicitly, consist in a series of claims that when taken together are supposed to lead to further claim: the conclusion of the argument. Arguments

bombard us constantly in the context of poems, books, Netflix documentaries, YouTube clips, dinner tables, school bus rides, advertisements, and more. Interestingly, arguments are a method by which people attempt to provide reasons to one another. Reasons are considerations that speak in favor of performing a certain action or holding a certain belief. Arguments are therefore a method by which other people attempt to put something into your mind that will affect how you navigate your life. However, not all arguments are created equal. In this minor, scholars will learn how to identify arguments “in the wild”, how to formally reconstruct those arguments, how to analyze those arguments, and finally how to evaluate them. The tools that scholars develop will equip them to be well-prepared citizens of our noisy world.

Minor: Introduction to Philosophy An abridged version of the major with the same title, this minor will introduce scholars to why it is important to question everything. What are great thoughts? Why are they worth thinking? Should you think about them? What are metaphysics, epistemology, and aesthetics? Philosophy attempts to answer these questions — mainly by providing more questions. Come and question everything you have ever been told. Discussions, seminars, meditations, plays, and journals will be used to reflect on questions we, as human beings, face. We will also attempt to apply these grand thoughts to everyday problems through ethics.

Minor: Mathematical Mazes for the Mind This mini-course is designed to cover a variety of topics with an emphasis on an appreciation of the elegant nature of mathematics. Although it starts with a discussion of the math portion of the ACT, SAT, Level I/II Achievement Tests, scholars will investigate and explore unusual, yet enriching mathematical and non-mathematical problems for enjoyment and challenge. The course will have a daily “mind massage” to build up powers of analysis and to hone deductive skills by using rebuses, puzzles, brain busters, and interesting visual materials. The class will be flexible enough to pursue some topics in depth, if necessary, and mini-practice sessions will be provided for those who desire to improve mathematical prowess.

Minor: Math Imitates Art Or does art imitate math? Too often, we separate the disciplines of mathematics and science from the disciplines of fine arts and the humanities, but in fact much can be gained from bringing these “two cultures” into dialog. What light can be shed on mathematics by thinking about it creatively? What can we learn about the world by looking at poetry or music or fine art with a mathematician’s eye? If you’re unwilling to be categorized as a “math person” or an “art person,” or you want to explore the grey areas between these fields of human endeavor, this minor will be fun for you.

Minor: Order Out of Chaos This minor will introduce scholars to the mathematics of the predictable and the unpredictable. Wait. Scratch that. There will be very little math in this simulation-based approach to statistical understanding. Through a series of labs using pen-and-paper and computer simulation*, we will learn to embrace the confusion of chaos and interpret the ordered messages hidden within. (*Simulations will be provided. No computer skills necessary. Well, knowing how to turn one on will be useful.)

Minor: Overture, Hit the Lights!: A Critical View of Children’s Media “Hey kids...do you know what time it is?” Questions like this, ricocheting over audiences of wide-eyed youth, even

from the early days of television, will elicit screams of choreographed responses that will launch a program full of entertainment and educational experiences. We are still delighted by puppets, cartoons, and costume-clad personalities, but too seldom do we lend these expressions much critical thought. Overture, Hit the Lights will watch, analyze and criticize a number of entertainments meant for “children,” from Sesame Street to Looney Tunes and more, and discuss how they are structured, what social issues arise because of their nature and content, what their goals are, and whether or not they accomplish their goals or not. We will follow similar paths as we analyze some entertainments that 'appear' to be for children, but may not be (e.g. South Park, Family Guy, etc.) We will further study a variety of presentation techniques, such as puppetry, animation, claymation, stop-motion and acting, and we will work to put together a show that will effectively educate and entertain It'll be child's play!

Minor: Print Isn't Dead! Explore writing, photography, fonts, book arts, magazine publishing, zines, letters and other print media topics. We'll learn about the thriving independent publishing culture worldwide, study business models, and discuss the cultural implications of print publishing in the digital age.

Minor: The Spoken Word: Performance Poetry

Spoken word poetry combines the skill of using words to create images with the art of delivering these words to stir emotions. Poets – both novice and veteran – will study how to mix writing and performance by analyzing professional spoken word poetry, practicing the creative process with a hyper-focus on word choice, and delivering performances that literally mess with people's emotions (in the best way) with mind-blowing metaphors and messages, word plays and rhythms. An MSA Slam also adds a layer of healthy competition. This is your opportunity and venue to take words, passions and big ideas, mix a hefty amount of originality with a dash of spice, and serve a rich fare of panache and emotion.

Minor: Sports Math-Does it add or subtract to the game? From the constant stream of stats during a baseball game to the heartbreak of just missing that perfect 6.0, sports and math seem inseparable. Whether objective or subjective, we need math to determine the winners from the losers. Can math make the losers winners though? Can mobile apps that quantify an athlete's performance really improve it? In this course, students will discuss the math and sciences used in sports like baseball, figure skating, track, and tennis and evaluate their application.

Minor: They Did What?!

Science, especially chemistry, is filled with fascinating tales of intrigue, adventure, betrayal, and even love. This course will take students on a journey through the history of some of chemistry's most notable and notorious characters and their influence on the world as we know it today. If you have ever heard any of the legends of scientists gone-by (and even if you haven't), this course will answer the question: “They did what?”

Minor: This Minor is Socially Constructed

Why do boys like blue and girls like pink? Who determines what counts as low, middle, or upper class? Does race exist? What are the material and social consequences of arbitrary divisions among people? Is science objective? If you have ever wondered about any of these issues, look

no further! This minor will critically examine the taken-for-granted categories that make up our world from a sociological perspective. Hannah Arendt once said “there are no dangerous thoughts; thinking itself is a dangerous.

Minor: What Does it Mean to Be Human? Are humans the only species that are capable of language? Are we the only species capable of altruism or empathy? This course explores the question of what it means to be human through an anthropological and sociological lens. The course will begin looking at the question from the perspective of biological/physical anthropology by studying both ancient human ancestors and our modern primate relatives, looking at both their physiology and behavior to understand what is (and is not) unique to humans. We will then shift to a cultural anthropological/sociological perspective to think about what aspects of human societies seem to be universal and consider why certain types of institutions and social structures are so common among humans.

Minor: Where did you get those genes? Understanding the science of genetics and genomics What makes you . . . well, You? In this course, scholars will learn about the fascinating field of genetics to gain an appreciation of how we are each genetically unique. In addition, scholars will discover how our genotype interacts with our environment to decide our phenotype, which is what makes us who we are. This course will begin by introducing the basic molecular structure of the genetic code and the comprehensive mechanisms controlling how genes are passed on from parent to offspring, but will then expand to include the developing field of full-scale genome analysis known as genomics. Scholars will have the opportunity to view some of the cutting-edge technologies that allow researchers to investigate the mammalian genome. Those scholars with veterinary or graduate school aspirations in the fields of animal science or biology should consider this minor course.

Minor: Who Says What Gets Read? Censorship in American Poetry According to the American Library Association, 275 books were challenged in 2015 in attempts to restrict or remove these books from public spaces. These challenges point to a larger, national wariness about what literature has to say about such topics as religion, sexuality, politics, or authority. Censorship, or attempted censorship, problematizes the ideals of free expression and open access to information. At the same time, censorship gives more attention and notoriety to the very texts that would be suppressed, which calls into question the whole project of censorship. This class will explore the censorship and surveillance of literature by focusing on poets whose work has been challenged. We will read a variety of controversial poetry, interrogating censorship and anticensorship efforts. In doing so, we will confront thorny questions about free speech and public ethics.

This course will interest scholars who want to learn more about literature, power, or ethics. While the backbone of the course is a study of poetry, we will be just as much concerned with better understanding the cultural backdrops of the twentieth century. Readings, discussions, writing workshops, and occasional research projects will account for diverse interests and backgrounds.