Note: Please check the web-site for the most up to date course information. Registration is on a first-come, first-served basis, and some classes may be closed/full.

2005
RICE UNIVERSITY SUMMER SCHOOL
PROGRAM COURSE DESCRIPTIONS

ENRICHMENT

A R T

1 - Building Art. Use basic three-dimensional media to explore the art of architecture. From the Parthenon, to Frank Lloyd Wright, to the Empire State Building, be inspired by looking at famous houses, cathedrals, and other famous buildings in history. Employ the elements of architecture to design and construct fun and exciting buildings. Materials fee: $15. Open to all students. (11:00 a.m.)

2 - Color, Wonderful Color! Learn about the brilliance and magic of color through the use of paint, collage and design. We will be experimenting with different color theories, creating landscapes, name designs, color wheels and more! Materials fee: $15. Open to all students. (11:00 a.m.)

3 - Discovering the Third Dimension. Learn about sculpture as you increase your understanding of form in art. You will be introduced to different sculpture concepts and techniques while exploring the uses of a variety of media to create great three-dimensional works. Materials fee: $15. Open to all students. (10:00 a.m.)

4 - Noah’s Sketchbook. The intriguing world of animals serves as the subject matter for this course. Create realistic and abstract drawings, paintings, and sculpture of interesting birds, insects, reptiles, fish, and other fantastic animals. Explore limitless possibilities of animals and art using a variety of expressive media. Materials fee: $15. Open to all students. (9:00 a.m.)

5 - Watercolor Techniques. You will focus on the variety of different media that can be used with paint to achieve different effects. You will use salt, bleach, crayons, glue, plastic wrap, straws, wax paper and other materials with watercolor. Projects will include landscape and abstraction. Materials fee: $15. Open to all students. (9:00 or 10:00 a.m.)

E N G L I S H

6 - Finding Freedom. What does it mean to be free? Can freedom be truly attained? In this class, we will examine the works of writers and songwriters such as Langston Hughes, Kate Chopin, Lorraine Hansberry, William Ernest Henley, Jill Scott and Faith Hill, as we explore how they have addressed the very complex idea of freedom. Throughout the summer, we will engage in various writing assignments and daily discussions that will help us construct our own definitions of freedom. Materials fee: $12. Open to all students. (10:00 a.m.)

7 - Hobbits in Hollywood. Calling all hobbit-lovers and movie-lovers! Come unearth the journey the hobbits took to end up in Hollywood. We will learn about the process of adapting a book into a movie by studying the works of J.R.R. Tolkien and their adaptations. We will learn new writing techniques and put them to the test by acting out scenes. Then write your own script for a Tolkien short story. Materials fee: $12. Open to all students. (10:00 a.m.)

8 - The Importance of Being [Your Name Here!] Join us as we explore Oscar Wilde’s hilarious play The Importance of Being Earnest. In this course, we will examine the way Wilde uses satire and wit to comment on life in Victorian England. Then you will use your own sense of humor as you develop and write a scene for Wilde’s characters about issues that you care about! Materials fee: $12. Open to all students. (9:00 a.m.)
9 - Just Say It! Public Speaking 101. Do you love being in the limelight? Or do you dread being the center of attention? Either way, in this class you will captivate a crowd by learning the basics of public speaking. You will analyze the techniques of great speakers and create a speaking style all your own. Come write powerful speeches that are based on your own experiences and learn to leave your audience wanting more. Materials fee: $7. Open to all students. (10:00 a.m.)

10 - King Arthur: The Legend Continues. Did Arthur really exist? How has his story changed over time? We will examine the origins of Arthurian legend, and its development in folklore, fiction, and film through the present day. Read versions by Geoffrey of Monmouth, Sir Thomas Malory, and T.H. White, and create an Arthurian adaptation of your own. Materials fee: $8. Open to all students. (11:00 a.m.)

11 - The Mexican Parallel. You have heard of Jane Austen and Charles Dickens, but how about Maria Amparo Ruiz de Burton? No? Her novel Who would have thought it? was first published in 1872 and follows a plot and style format similar to those of typical European literary classics. Come gain a better understanding of the elements needed to write a classic novel, as well as the Mexican-American place in history and literature, as we read and analyze de Burton’s work. Materials fee: $15. Open to students in grades 10 through 12. (10:00 a.m.)

12 - A Midsummer Day’s Dream. Who knew that fairies, donkeys, and dukes roamed freely at Rice? In this class, they will! We will dive into Shakespeare’s A Midsummer Night’s Dream, exploring its historical and modern appeal, and its theatrical and cinematic adaptations. We will develop a method to read, decipher, and understand Shakespeare, finally performing parts of our own A Midsummer Night’s Dream. Materials fee: $12. Open to all students. (10:00 a.m.)

13 - Monsters Unmasked. What happens to characters who are isolated from society as outcasts? What are the ethical concerns involved in the creation of life? We will answer these questions and more by studying Mary Shelley’s Frankenstein. We will also examine film portrayals of this timeless classic, and compare them to Shelley’s novel. Writing assignments include journals, in-class writing, and a major essay. Materials fee: $10. Open to students in grades 9 through 12. (10:00 a.m.)

14 - Oh, the Options! Did you ever want to say something important, but were not sure how? This class will explore the broad range of written forms, such as poetry, prose, narrative, dialogue, and persuasive essay, which are at any writer’s fingertips. During the course of the summer, each student will create a portfolio on his/her message of choice, displaying a well-rounded command of various written forms. Materials fee: $12. Open to all students. (11:00 a.m.)

15 - The Play’s the Thing. How do playwrights captivate their audiences without much more than a script? What techniques do they use to draw their audiences into the story? In this course, you will read, watch, and perform scenes from the critically acclaimed play A Doll’s House by Henrik Ibsen. After learning the techniques of the masters, try your hand at the complex craft of playwriting. Materials fee: $12. Open to all students. (9:00 a.m.)

16 - Shakespeare’s Villains. Oh, the Villainy! Come explore the darker side of the Bard as we take a look at Shakespeare’s villainous characters. We will read scenes from several plays, read Othello in its entirety, and stage some scenes together. We will also respond to our reading in AP exam writing format. The next time you need to write an essay on Shakespeare, you’ll be ready! Materials fee: $12. Open to students in grades 10 through 12. (9:00 a.m.)

17 - Speaking A New Language: Poetry. Breathe life into poetry and make it come alive while learning how to effectively read and perform poetry. In this class, we will explore tone and find meaning in the works of writers such as W.H. Auden, Brigit Kelly, William Wordsworth, Jill Scott and Lynn Emanuel. After listening to poetry and songs to improve your interpretive skills, you will perform an original piece or do an interpretative performance of a favorite published poem or song. Materials fee: $10. Open to all students. (11:00 a.m.)

18 - Stand and Deliver. Come join in the conversation as we begin with the basics of presentations: posture, gesture, and tone. During the course, you will build confidence, improve oral expression, and understand
the difference between the written and spoken word. Building upon each assignment you will perform a culminating, extended speech. Materials fee: $7. Open to all students. (9:00 a.m.)

19 - Taking Pictures of Poetry. Ever wish your books had more pictures? In this class, add them yourself! We will examine all the different ways to translate words into pictures, from comics to photographs. We will also look at works of art and use them to enhance our poetry and prose writing with vivid descriptions. Materials fee: $10. Open to all students. (9:00 a.m.)

20 - A Voyage Around the World. Join our writers' workshop as we compare legends, myths, and fables from different cultures. What are the differences among these genres? Learn how to write a folktale that reflects your own cultural perspective. Come explore tales from around the world, discover their common elements and purposes, and write and share your own story. Materials fee: $7. Open to all students. (9:00 a.m.)

21 - Welcome to the Twilight Zone. Are you fascinated by the strange, weird, and abnormal? In this course, we will read short stories by Poe, Hawthorne, and Faulkner and Chopin, exploring how the portrayal of the abnormal affects our perception of the normal. Our discussions will then provide a basis for composing both an analytical essay and short creative works! Materials fee: $10. Open to all students. (11:00 a.m.)

22 - What Does It Mean? Ever wonder what an author meant after finishing reading? Learn how to approach different texts, from short stories to poems, to raise your level of comprehension. In addition, you will enhance your writing skills as you respond to the readings. Materials fee: $10. Open to all students. (11:00 a.m.)

FOREIGN LANGUAGES

23 - Joie de Vivre (Beginning French). Come appreciate the finer things in life as the French do. This introductory class will teach the basic French you will need to participate in everyday life in France. Learn French the natural way through conversations, skits, and games. Materials fee: $7. Open to all students. (9:00 a.m.)

24 - La Vie dans le Monde Francophone (Intermediate French). Review and improve your reading, writing, listening, and speaking skills by learning about everyday life in the francophone world. You will see the many similarities and differences in our lives! You should be familiar with verb conjugations, the passé composé, and accords. A special emphasis will be placed on francophone literature and cinema. Materials fee: $7. Prerequisite: One year of high school or two years of middle school French. (11:00 a.m.)

25 - Deutsch auf der Autobahn (Beginning German). Join us on a summer road-trip from Munich to Berlin. Learn basic conversation, grammar, and culture as we cruise through Germany at 200 kilometers per hour. Start your engines! Materials fee: $12. Open to all students. (11:00 a.m.)

26 - ¡Vamos, Amigos…South of the Border! (Beginning Spanish) Come along on a fantasy summer trip to Mexico! You will learn basic Spanish, including everyday vocabulary, present-tense verbs, and simple sentence structure. So, if you want to learn Spanish in a natural, fun and creative environment, pack your bags because off we go! Materials fee: $7. (10:00 or 11:00 a.m.)

27 - Español en la Cultura Popular (Intermediate Spanish). Now that you've learned the basics of Spanish, come and enhance your speaking and listening skills through investigating popular culture. In this class you will study Latin American popular culture present here in the United States. Build confidence in speaking and listening in Spanish as we experience music, television and media of various cultures. Come learn about the remarkable presence of Spanish in ‘la cultura popular.’ Materials fee: $7. Prerequisite: One year of high school or two years of middle school Spanish. (10:00 a.m.)

28 - ¡Conversemos! (Advanced Spanish) Do you really want to be able to speak Spanish? Do you want to understand what others are saying? Come brush up your skills with some of the trickier grammar points in Spanish, while becoming more proficient with speaking and listening. We will discuss such topics as current events and popular culture. You really can speak Spanish! Materials fee: $7. Prerequisite: Spanish II or above. Open to students in grades 9 through 12. (9:00 a.m.)
### Mathematics

29 - Basic Algebra. If you have not yet taken Algebra I, this is the class for you. You will get a head start on mastering important concepts such as expressions, equations, and functions with an emphasis on real-world applications and cooperative learning. Materials fee: $10. Open to all students who have not completed Algebra I. (9:00, 10:00, or 11:00 a.m.)

30 - Geometry. Work with two- and three-dimensional models as you learn about angles, area, volume, and concepts such as similarity and congruence. Through a variety of activities, you will develop an understanding of the geometric properties of polygons and objects in everyday life. Materials fee: $15. Prerequisite: Basic Algebra. (9:00, 10:00, or 11:00 a.m.)

31 - Algebra I Review. Have you already taken Algebra I, and is Algebra II in your near future? In this course you will strengthen your background and master the skills presented in first-year Algebra. This course will emphasize equation solving, linear equations, absolute value equations, and quadratic equations. Materials fee: $7. Prerequisite: Algebra I. (9:00 or 10:00 a.m.)

32 - Ancient Mathematics. Many of the world’s ancient civilizations developed their own mathematical systems. Their approaches to mathematics were as diverse as the cultures themselves. In this course, you will learn how the Babylonians, Egyptians, Greeks, and many other civilizations created and utilized their unique brands of mathematics. Come along to learn how to use ancient mathematics to solve algebraic and geometric problems. Materials fee: $15. Prerequisite: Algebra I. (11:00 a.m.)

33 - Topics from Algebra II. Second-year algebra often serves as a bridge to higher mathematics. In this course you will focus on topics from Algebra II such as functions, quadratic equations, rational equations, polynomials, and logarithms. Materials fee: $7. Prerequisite: year-long Algebra I. Open to students in grades 9 through 12. (9:00 or 11:00 a.m.)

34 - Introduction to Trigonometry. Do you enjoy solving real-world physical problems? Many such problems involve the use of trigonometry, a subject that requires both algebra and geometry. This class will introduce the trigonometric functions for use in exploring a wide variety of physical applications. Materials fee: $7. Prerequisites: Algebra I and Geometry. Open to students in grades 9 through 12. (11:00 a.m.)

35 - Engineering Math. How are passengers protected in a car wreck? What caused the catastrophic collapse of the Tacoma Narrows Bridge? Apply your knowledge of math and your common sense to solving problems in field engineering. Do the calculations and back up your numbers with modeling and experimentation as you define problems, determine their causes, and develop solutions. Materials fee: $7. Prerequisites: Algebra I and Geometry. (10:00 a.m.)

36 - Vectors, Matrices, and Transformations. Explore basic concepts from linear algebra which are often not covered in the traditional high school curriculum. Vectors will be used to explore lines, planes, and three-dimensions, and matrices will be applied to transformations in two- and three-dimensions. Materials fee: $7. Prerequisites: Algebra I and Geometry. Open to students in grades 9 through 12. (10:00 a.m.)

37 - Introduction to Computer Programming with Java. Introduce yourself to the fun and challenging world of computer programming. In this class, you will learn the fundamentals of computer programming by using the Java programming language. The emphasis will be on problem-solving as we cover loops, conditionals, simple and complex data types, classes, objects, and methods. We will focus both on quick problem-solving and on long-term projects as well. Materials fee: $15. Open to all students. (9:00, 10:00, or 11:00 a.m.)

### Physical Education

All physical education courses have a $30 fee for facilities and equipment use.
38 - Beginning Basketball. Learn the fundamentals of basketball including shooting, passing, dribbling, team strategies for both offense and defense, and the rules of the game. Open to all students. (10:00 a.m.)

39 - Intermediate Basketball. Deny the pass, jump to the ball, and make fast breaks as you review basic skills including passing, dribbling, shooting, and defensive and offensive strategies. Learn to work as a team while you improve your individual skills. Prerequisites: Basic passing, shooting, and dribbling skills. (9:00 or 11:00 a.m.)

40 - Flag Football. Train in the basics including passing, receiving, offensive and defensive schemes, and the rules of the game. The class will conclude with a championship tournament. Open to all students. (10:00 a.m.)

41 - Racquetball. Increase your cardiovascular fitness and hand-eye coordination as you learn the strokes, rules, and strategies of the game. Open to all students. (11:00 a.m.)

42 - Beginning/Intermediate Swimming. Learn water safety skills and basic strokes such as the American crawl, back stroke, breast stroke, side stroke, treading water, and survival floating. Open to all students. (9:00 a.m.)

43 - Beginning Tennis. Learn the basic skills necessary to play tennis at the beginning level including forehand and backhand strokes, serving, and the rules of the game. Open to all students. (11:00 a.m.)

44 - Intermediate Tennis. Refine your tennis strategies for singles and doubles play while sharpening your basic strokes. Prerequisites: Basic hitting and volleying skills. (9:00 a.m.)

45 - Track. Increase your speed, endurance, and physical conditioning as you practice the skills and strategies for running the best race of your life! Open to all students. (11:00 a.m.)

46 - Beginning Volleyball. Learn basic skills such as passing, setting, serving, offensive and defensive strategies, and the rules of the game. Open to all students. (10:00 a.m.)

47 - Intermediate Volleyball. Learn alternate rotations and the strategies of different positions as you refine the basic skills of serving, passing, and setting. Prerequisites: Experience in passing, setting, and overhand serves. (9:00 a.m.)

48 - Weightlifting and Conditioning. Improve your cardiovascular fitness and muscular strength through an individual program based on your level of fitness. Open to all students. (10:00 a.m.)

S C I E N C E

49 - 3, 2, 1…Liftoff! How do spacecraft orbit the Earth without falling? Would an astronaut be crushed by the gravity on Mars? Who really won the Space Race – Russia or the United States? Come discover the answers to these and other mysteries of modern rocketry and space travel through physics, chemistry, engineering, and history. The course will include hands-on labs and will culminate with designing and launching your own model rocket. Materials fee: $15. Prerequisite: Algebra I. (10:00 a.m.)

50 - Blood and Guts. Investigate the evolution and adaptations demonstrated by the animal kingdom. Learn how animals respire, move, transport materials, digest food, and respond to the environment. Frequent labs will include dissections and observations of animals. Materials fee: $15. Open to students in middle school through grade 9. (10:00 a.m.) Open to students in grades 10 through 12. (11:00 a.m.)

51 - Fun with Chemistry. In this course you will learn bonding while tie-dying shirts, freezing point depression while making liquid nitrogen ice cream, and phase changes using dry ice. This course will include concepts to help you get ready for Chemistry I while having fun in the lab. Materials fee: $15. Open to students in grades 10 through 12. (9:00 or 10:00 a.m.) Open to students in middle school through grade 9. (11:00 a.m.)
52 - Lab Savvy. Explore the nature of science and scientific investigation. Learn the techniques involved in applying the scientific method, taking accurate measurements, and graphing, as you do experiments in chemistry, biology, and physics. Materials fee: $15. Open to students in middle school through grade 9. (9:00 a.m.)

53 - The Physics of Light and Color. Ever wonder where the colors of the rainbow come from? Why is the sky blue during the day, but red at sunset? What makes a laser different from a light bulb? Discover the answers to these and other questions about light using prisms, mirrors, lasers, and lenses. Materials fee: $15. Open to all students. (9:00 a.m.)

54 - The Physics of Martial Arts. How can people break 10 inches of concrete with one blow? How can a small person throw a football player effortlessly? How can Jackie Chan do all of those amazing moves? This course will explore the physics (and related sciences) behind the moves. No martial arts experience needed. Materials fee: $15. Open to all students. (11:00 a.m.)

SOCIAL STUDIES

55 - All About Oil. What impact has oil had on Houston and Texas? How did Americans become so dependent on oil? What will happen when the supply of oil runs out? We will be exploring these and other questions through guided independent research that will be consolidated into our own book, “A History of Oil.” You will not only learn research skills, but also what it means to study, think and write about history. Materials fee: $10. Open to all students. (9:00 a.m.)

56 - Assassinations: Altering the Course of History. To what degree do political assassinations impact the course of history? Why are the presidential assassinations of Lincoln and Kennedy better remembered by history than those of Garfield or McKinley? We will examine the deaths of Abraham Lincoln, the Czar Nicholas II, Archduke Franz Ferdinand, Gandhi, and Martin Luther King, Jr. How did their deaths change history, and what would the world be like if they had lived? Materials fee: $7. Open to all students. (10:00 a.m.)

57 - Calling All Spies and Special Agents! In this crash course in espionage and law enforcement, we will go over the myths and facts associated with the FBI. We will research their roles in the justice system as a whole, look at some of their major cases and analyze the accuracy of the organizations’ representation in television and film. Materials fee: $7. Open to all students. (9:00 a.m.)

58 - Cape to Cairo: The Changing Face of Africa. You have seen mummies in museums, read about the slave trade, and heard of Nelson Mandela, but how much do you actually know about Africa? Through lectures, reading and writing, come explore the dynamic past of this continent from ancient Egypt in the North, the slave trade of the West, and Apartheid of the South. Materials fee: $10. Open to all students. (11:00 a.m.)

59 - Childhood to Adolescence: Developmental Psychology. How are expectations for a teenager different from those for a child? What do theorists like Erickson and Piaget tell us about how humans develop? Come explore through research, observation, and self-reflection how you developed from a baby to the person you are today. Materials fee: $7. Open to all students. (10:00 a.m.)

60 - G8: The Globalization Club. It all seems so simple: you walk in a store, find what you want, and buy it. In the U.S., we rarely experience shortages of items we need, but when we move to a global setting, negotiation and planning is needed to ensure that goods continue to move fluidly. Enter the G8, a consortium of eight modern industrial nations that plots the future of economic trade in the world. We will discuss the past and future role of this organization, examine the member nations that make up the G8, and study economic concepts that shape our world. Materials fee: $8. Open to all students. (10:00 a.m.)

61 - Hear Me Out! You are asked to give a public speech! Are you nervous? Do you have sweaty palms or are you feeling weak in the knees just thinking about it? If so, learn to successfully communicate through public speaking by examining memorable political speeches and debates throughout history. We will examine notable presidential debates as well as landmark political addresses, such as Lincoln’s “Gettysburg Address” and Martin Luther King, Jr.’s “I Have A Dream” speech. Dive into this aspect of politics in order
to evaluate and eventually write and present your very own speech. Materials fee: $7. Open to all students. (9:00 a.m.)

62 - History Back to Front. “Why do I need to know this?” Most courses teach history as if you were reading a book, from front to back, making it hard to relate history to your everyday life. This course will attempt to change your perspective on history by reversing the instruction - we will read the last page first. We will examine topics that affect your daily life, such as listening to an MP3 player and obtaining a driver’s license, and trace them back towards their historical origins. Materials fee: $8. Open to all students. (11:00 a.m.)

63 - I saw it on TV. Can you recite every line of your favorite episode of “The Simpsons” but panic when your teacher requires you to memorize the “Gettysburg Address”? With at least one TV in 99% of American households, is there a more powerful and prevalent mode of communication available than the television? We will examine how sitcoms, news coverage, and commercials shape our views on history and culture. You will develop a personal, historical, and sociological study of how TV affects you life, which will culminate in an essay and a presentation. Materials fee: $10. Open to all students. (9:00 a.m.)

64 - Mysteries in History. Did you ever wonder who Robin Hood really was? How do historians answer questions that have gone unresolved for hundreds of years? Do popular historical movies depict what really happened in the past or do they use poetic license to spice up the truth? Come decipher primary and secondary sources to piece together answers to mysteries of the past. Find out how exciting history can be as we develop our research and analytical skills and find answers for some of history's unsolved mysteries. Materials fee: $7. Open to all students. (10:00 a.m.)

65 - Nifty 50s, Swingin’ 60s, and Groovin’ 70s. Are you curious about the history of famous musical talents and events such as Elvis, The Beatles, and Woodstock? Do you wonder why President Kennedy and Martin Luther King, Jr. were assassinated? Are you intrigued by technology, war, and scandal? Come time-travel through three decades of creativity, cultural explosion, and controversy. Examine everything from the rise of pop culture, civil rights, the space race, and Vietnam, to the craze of disco fever, presidential assassinations and various political scandals. We will use art, literature, music and film to bring these exciting times to life. Materials fee: $7. Open to all students. (11:00 a.m.)

66 - Presidential Elections: The Donkeys and the Elephants. Why have the last two presidential elections each come down to the voters in a single state? In this course, we will examine dominating factors that contribute to U.S. presidential elections, such as the history of the political system, infamous elections of the past, and the development of media influences. We will apply what we learn through observation, research, and analysis to what we have seen in the most recent presidential elections. Materials fee: $7. Open to all students. (11:00 a.m.)

67 - Psychology through Experimentation. Ever wonder how psychologists conduct research? Together we will experience first-hand the kinds of research methods psychologists use including questionnaires, surveys and experimentation. We will visit psychological laboratories, practice running experiments on each other and develop research hypotheses that we can test together. Materials fee: $10. Open to students in grades 9 through 12. (11:00 a.m.)

68 - To War! History’s Most Pivotal Battles. In this course you will learn about history’s most influential battles, who fought in them, what weapons were used, who won and why. We will study the politics and scandals behind the battles and learn how such influences could affect the entire outcome of a war. You will learn about famous battles such as Bunker Hill, The Marne, and many others. Materials fee: $7. Open to all students. (10:00 a.m.)

SKILLS

69 - Advanced Topics in Mathematics. This course will explore topics from pre-calculus and calculus, enabling students to explore concepts in a depth that is often not possible in an AP course. Possible foci include differential calculus, vectors, probability, and conic sections; the exact curriculum will be
determined by the makeup of the class. This skills class is for motivated mathematics students who desire to strengthen their understanding of concepts drawn from the upper secondary program. Materials fee: $7. Prerequisite: Algebra II.

70 - Basic Algebra. If you have not yet taken Algebra I, this is the class for you. You will get a head start on mastering important concepts such as expressions, equations, and functions with an emphasis on real-world applications and cooperative learning. Materials fee: $10. Open to all students who have not completed Algebra I.

71 - Basic Negotiations. How do some people always get what they want? They negotiate. Whether you want a late curfew, a higher salary, or to borrow the car for a date – you have to know how to wheel and deal to get it. Learn how to do it right. This skills class will teach you basic negotiating tactics through lecture and simulations. You will get to practice and observe various types of negotiating scenarios. Materials fee: $15.

72 - The Big Ball Game: Basketball. Improve basketball skills like three-pointers, hot-shots, and free-throw shooting and participate in one-on-one, two-on-two, and five-on-five competition. Materials fee: $30.

73 - Collage. In collage, you will use personal photographs and a variety of other materials to create collages with themes. Media will include paint, sun prints, weaving and printmaking. Students will need to provide personal photographs. Materials fee: $15.

74 - Critical Thinking and Reasoning. Ever need to create a logical argument to convince someone that you have the right ideas? In this course, you will learn the elements of a strong argument that will work on paper or in talking to people. Come develop your critical thinking and reasoning skills as you learn to recognize, shape and evaluate various arguments. Materials fee: $10. Open to students in grades 9 through 12.

75 - Debate for Beginners. Learn to research and gather evidence, present logical arguments, and speak persuasively using voice control, gestures, and eye contact as you learn to argue effectively and win debates. You will have the chance to debate before live audiences and have your work critiqued! Must be willing to attend full session. Materials fee: $7. Open to all students who will be attending the full six weeks.

76 - Drawing and Painting from Photographs. Explore different and exciting drawing and painting techniques through the use of photographs. Students in this course will learn to manipulate paints, pastels, pen and ink, and colored pencils while examining a variety of art subjects. Materials fee: $15.

77 - Fearless Essays. Whether you are a high school junior preparing for the timed writing on the AP English Lit. Exam, an eighth-grader on his or her way to high school, or anybody in between, this is the class for you! Come improve your essay writing skills as we address a broad range of topics, from literary analysis essays using MLA style to the personal and college essay. Students will read and examine contemporary and classic short stories, fiction excerpts, and non-fiction essays which will serve as a catalyst for our writing adventures. Have nothing to fear but fear itself in this class!! Materials fee: $7.

78 - Food for Thought! How do you digest news? Should you swallow all that you read, see, and hear? Learn how to read the newspaper, how to listen to the news, how to analyze the news accounts and to write a news story. In this course you will also tape your own news program! Materials fee: $7.

79 - Fun with Chemistry. In this course you will learn bonding while tie-dying shirts, freezing point depression while making liquid nitrogen ice cream, and phase changes using dry ice. This course will include concepts to help you get ready for Chemistry I while having fun in the lab. Materials fee: $15. Open to students in middle school through grade 9.

80 - Geometry. Work with two- and three-dimensional models as you learn about angles, area, volume, and concepts such as similarity and congruence. Through a variety of activities, you will develop an understanding of the geometric properties of polygons and objects in everyday life. Materials fee: $15. Prerequisite: Basic Algebra.
81 - Intermediate Computer Programming with Java. If you have prior experience in computer programming, come attempt this challenging class. You will learn intermediate program design in an object-oriented environment using the Java programming language. You will create classes that solve problems ranging from the most basic math problems to advanced database design. By the end of this course, you will be adept at solving problems in a quick-fire method and in a project mode as well. Materials fee: $15. Prerequisite: previous enrollment in Beginning Java at Rice Summer School or completion of 1st year high school Computer Science I course.

82 - Lab Savvy. Explore the nature of science and scientific investigation. Learn the techniques involved in applying the scientific method, taking accurate measurements, and graphing, as you do experiments in chemistry, biology, and physics. Materials fee: $15. Open to students in grades 10 through 12.

83 - Mathematical Adventures with Reading, Writing, and Arithmetic. We will use problem solving skills to explore classic puzzles on a mathematical journey with an ingenious character as we read the novel The Man Who Counted: A Collection of Mathematical Adventures. The course will emphasize the interplay between literature and mathematics and will involve significant amounts of reading, writing, and problem solving. Materials fee: $15.

84 - Research Writing. Do you want to strengthen your research skills or improve your writing? Maybe you have an idea you’d like to investigate and learn more about. Get ready for a hands-on, practical, and fun approach to research writing. We will build research papers from the ground up, beginning with the seeds for ideas, continuing with the paper’s structure, and finally producing a final, polished draft. Prepare for those high school and college research papers the painless way. Materials fee: $15.

85 - Swim Team. Fine tune your swimming strokes and swim team techniques as you increase your endurance and speed in this class for serious swimmers only. Will also include water sports like water polo. Materials fee: $30. Prerequisite: Must be able to swim freestyle at least 100 yards without stopping and demonstrate all strokes, including the butterfly.

86 - A Taste of the Francophone World. This course will introduce you to French culture through art, music, film, food, and commercials. Learn about the francophone world in a fun way. Bon appetit! Materials fee: $7.

87 - Intermediate/Advanced Tennis. Advanced tennis players will sharpen their strokes and strategies for hitting winners. Materials fee: $30. Prerequisite: Experience in playing matches.

88 - Vocabulary in Context. Where does the English language fit in the context of world languages? In this course, you will expand your English vocabulary and develop an awareness of the connection between English and other languages. We will examine the influences on the English language, with emphasis on Latin, Greek, German, French, and Spanish. Come and enhance your vocabulary this summer! Materials fee: $10.

CREDIT

89 - Geometry, PreAP/Honors. (Credit: 1 unit) Provides a foundation for higher level mathematics; presents Euclidean geometry of points, lines, planes, parallel lines, and congruent and similar polygons and circles. Prerequisite: Algebra I H.

90 - Pre-Calculus, PreAP/Honors. (Credit: 1 unit) Combines trigonometry, elementary analysis, and geometry with research and additional mathematical proofs in preparation for calculus. Prerequisites: Algebra II H and Geometry H.

91 - Chemistry I, PreAP/Honors. (Credit: 1 unit) Presents fundamentals of chemistry involving major chemistry topics and associated laboratory processes. Materials fee: $15. Prerequisite: Biology I H. Recommended: Algebra II.
92 - World History Studies, PreAP/Honors. (Credit: 1 unit) Emphasizes cultural, geographic, economic, and political history of major areas to develop understanding of world events and geopolitical balance today.

93 - United States History: From Early Explorers to the Present, AP. (Credit: 1 unit) Provides knowledge of our American heritage and the United States’ achievements in social, political, and economic areas since its inception.

94 - United States Government and Economics, AP. (Credit: 1 unit) Develops knowledge and awareness of the United States’ political system, governmental structure and functions at all levels. Accelerates the regular government program to include additional research, analysis, synthesis and evaluation skills. Presents basic principles of economics to guide students toward responsible citizenship. Recommended for grade 12. Prerequisites: United States History and Honors standing.