

2015



vsa

VANDERBILT
SUMMER
ACADEMY

2015 CATALOG

VANDERBILT
PROGRAMS FOR
TALENTED YOUTH



*Developing talent in gifted students
and those who work with them*



DATES AND TUITION

Vanderbilt Summer Academy 2015 offers three sessions, designed for different grade levels.

Applications are accepted beginning January 6. Many classes will fill during the priority application window from Jan. 6–16, 2015; therefore, we highly recommend submitting applications during this window for the best chance of placement in your first choice class.

Session I (one week)

Rising 8th Graders

(students entering 8th grade in fall 2015)

June 14–19

\$1,295*

Session II (two weeks)

Rising 9th and 10th Graders

(students entering 9th or 10th grade in fall 2015)

June 21–July 3

\$2,350*

Session III (three weeks)

Rising 11th and 12th Graders

(students entering 11th or 12th grade in fall 2015)

July 12–31

\$3,450*

*Unless applying for financial aid, all applications require a \$300 deposit. For more application information see page 27.

#vsa2015

 **Vanderbilt SummerAcademy**

 **@vanderbiltpty**

 **@VanderbiltPTY**

 **vanderbilt summeracademy**

QUALIFYING SCORES*

Please note that scores are based upon the grade in which the student took the test.

	SAT	ACT
7th Grade	500M or CR	20M or R
8th Grade	550M or CR	22M or R
9th Grade	590M or CR	25M or R
10th Grade	630M or CR	27M or R
11th Grade	670M or CR	29M or R

If you have taken the PSAT, add a zero to get your SAT score.

Once a student has qualified, he or she does not have to submit further test results for following years.

*No SAT/ACT scores? Students may be eligible to apply through our portfolio admissions options. To apply via portfolio, students should complete the VSA application and essays and submit the following items in lieu of SAT/ACT scores:

- A grade-level assessment indicating 90th percentile or higher in either a verbal or non-verbal section. Acceptable assessments include but are not limited to: ERB, CogAT, Terra Nova, ITBS, Stanford Achievement Test, OLSAT, Woodcock-Johnson, WISC, Stanford-Binet, MAT.
- Two teacher recommendations.
- School transcript or most recent report card (transcript preferred).
- Sample of recent course work relating to the VSA course the student wishes to take.

See pty.vanderbilt.edu/students/vsa/admissions/qualification for more details and to download teacher recommendation forms.

A NOTE FOR PARENTS

Out-of-level testing, such as the SAT or ACT when given to younger students, offers the best gauge of how appropriate the course work may be for an individual.

In our experience, gifted students rise to the challenge of taking these tests, so long as undue pressure is not placed upon them. Students may

take the SAT or ACT assessments at any time and at any grade level. They can also retake the tests and submit new results. We accept scores that were achieved through the Duke Talent Identification Program, tip.duke.edu, but you are not required to go through TIP to apply to Vanderbilt Summer Academy. Please note that any scores submitted to us are for our placement purposes only, and do not go to VU admissions.

You can register directly for either the SAT or the ACT through their websites (though an official report mailed directly from ACT / The College Board is not required):

collegeboard.com

Vanderbilt PTY code: SAT 3697

actstudent.org

Vanderbilt PTY code: ACT 5165

FINANCIAL AID

Vanderbilt Programs for Talented Youth is dedicated to making its programs available to qualified students regardless of ability to pay. To apply for financial aid, you may either download the application at pty.vanderbilt.edu/vsa or complete the financial aid application included in this catalog on page 33. Please note that financial assistance funds are limited, and awards are based on demonstrated financial need. VSA does not award full funding. All financial aid awards are partial.

APPLY ONLINE

VSA now offers online applications.

Visit pty.vanderbilt.edu/vsa to access the online application.

CONTACT US

Phone: (615) 322-8261

Email: pty.peabody@vanderbilt.edu

Fax: (615) 322-3457

On behalf of Vanderbilt Programs for Talented Youth, we invite you to join us this summer to experience campus living at one of the world's great universities.

For the academically gifted learner, Vanderbilt Summer Academy offers one-week, two-week, and three-week sessions, each taught by stellar Vanderbilt faculty and scholars. We maintain low faculty-student ratios so that you receive the individual attention necessary to pursue your academic interests through one of our intellectually rigorous courses. Each of our classes will develop your critical thinking skills, encourage intellectual exploration, and teach you how to thrive in a college classroom setting. At Vanderbilt Summer Academy, you will have the opportunity to push your intellectual limits alongside peers who also appreciate the sheer joy of learning and academic discovery.

Vanderbilt Summer Academy is unique among summer academic programs due to the high caliber of our faculty and access to university resources. You can study nanotechnology in a state-of-the-art lab, examine dental casts in Vanderbilt's osteology lab, or go on rounds with doctors at the VU Medical Center. We also provide ways to develop your social, emotional, and physical well-being. Each afternoon you will participate in an Areté class to clear your mind, body, and spirit and become physically active through courses such as yoga, dance, martial arts, fencing, and many others.

The quality of our residential facilities and beautiful, tree-lined campus nestled in the heart of Nashville's city center provides the perfect environment for learning. You will live in a first-year residence hall in The Martha Rivers Ingram Commons at Vanderbilt, enjoy pickup games of Ultimate Frisbee on the green lawns of historic Peabody campus, and embrace what Vanderbilt and Nashville have to offer.

You will find that our programs have been designed specifically for students like you. VSA faculty and staff provide support and encouragement, inside and outside our classrooms, to help you succeed academically. Whether it's through expanding your knowledge in our accelerated courses, or at a cookout, dance, or campus concert, Vanderbilt Summer Academy is committed to making your experience one that you will remember forever.

As you look through this catalog, we encourage you to imagine yourself here at Vanderbilt University this summer—learning, growing, and enjoying life with peers who share similar academic abilities and interests and a faculty and staff who care about you.

We hope to see you soon!



Tamra Stambaugh, Ph.D.
Executive Director,
Vanderbilt Programs for Talented Youth



David Dunn, Ph.D.
VSA Educational Consultant



Rosie Forrest, M.F.A.
Assistant Director, Residential Programs



John M. Girdler
VSA Program Coordinator

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Academic Life at Vanderbilt Summer Academy

OUR PHILOSOPHY

Vanderbilt Summer Academy offers a challenging introduction to the academic rigors of college life at Vanderbilt. You will enjoy the excitement of in-depth, accelerated study of a fascinating subject within a community of your intellectual peers. Our course catalog (beginning on page 7) is filled with wide-ranging, interdisciplinary topics such as nanotechnology, religious studies and philosophy, history, and medicine.

Regardless of where your interests take you, we have courses designed to provoke ongoing discussion and learning. Above all, Vanderbilt Summer Academy is a “risk-friendly” academic environment that will both challenge and foster your abilities.

OUR FACULTY

Vanderbilt Summer Academy instructors (profiles beginning on page 21) are drawn from the wealth of talented faculty and scholars here in the Vanderbilt University and Nashville communities and include many distinguished professors, scientists, and researchers. All instructors are carefully selected not only for achievements in their fields, but also for their commitment to excellence in classroom teaching. These outstanding VSA faculty serve as academic role models, providing instruction and insights into their areas of study. A teaching assistant (TA) with demonstrated expertise in the content area supports each class. The TA serves as a resource to the instructor and to the class—sharing his or her perspective on the subject matter and helping promote a secure learning environment.

Why VSA? We recognize that you have many choices of summer academic programs. Here are some things that set VSA apart.

- **Access to scholars.** Vanderbilt faculty and doctoral-level scholars teach most of our classes, so you'll work with true content-area experts.
- **Small classes.** Classes have 12–16 students in most cases.
- **Personalized attention.** Each class has a dedicated instructor and teaching assistant.
- **Opportunities for personal development.** From Areté classes, to talks on social and emotional growth, to sessions with admissions counselors, VSA celebrates the whole you!
- **Campus living.** VSA students reside in a state-of-the-art first-year residence hall designed for social interaction with your community of like-minded intellectual peers.
- **Parent education.** VSA offers a special opening-day lecture and information session for parents, covering a range of topics relating to gifted teens and college admission processes.



OUR COURSEWORK

The Vanderbilt Summer Academy course curricula are designed to meet the intellectual and cognitive needs of highly gifted youth.

Vanderbilt Summer Academy courses are:

- Accelerated and unique, offering you the opportunity to explore areas of study not typically available elsewhere
- Fast-paced and rigorous with an emphasis on critical and creative thinking
- Drawn from a broad range of disciplines in order to maximize the potential for interdisciplinary study
- Rooted in the rich academic and cultural environment of Vanderbilt University and the surrounding Nashville community

Vanderbilt Summer Academy offers the opportunity to explore exciting new areas of study—in and out of the classroom. You can study in campus libraries, laboratories, studios, and galleries, and enjoy many of the off-campus resources that Nashville provides. The innovative curricula allow you to learn through hands-on activities, real-world scenarios, laboratory experiments, lively group discussions, and self-directed projects.

With six hours a day devoted to learning, VSA courses allow for a satisfying level of focus and depth. And while the course work can be exciting and intensive, homework assignments

are kept to a minimum. When out of class, you will be able to fully enjoy the social and recreational activities Vanderbilt Summer Academy has to offer.

ASSESSMENT

So students can best experience the joy of learning within a group of true intellectual and social peers, VSA is a non-graded program and does not offer credit for course work. Rather, VSA promotes accelerated learning in an environment tailored to promote academic risk taking. We encourage you to push your intellectual limits without fear of failure. Rather than a grade, you will receive a performance evaluation. This thoughtfully prepared constructive feedback will help you accurately assess your achievements in the course work. More than a number or letter, this rubric is designed to help you understand your performance and abilities and to guide you in charting your future academic endeavors. Because Vanderbilt Summer Academy realizes that parents are important partners in the intellectual growth of their children, instructors make themselves available to parents for an optional end-of-session open house or conference.

“VSA is a community of brilliant students and teachers who bring out the best of me.”



Residential Life at Vanderbilt Summer Academy

Vanderbilt Summer Academy isn't only about the academic experience. We believe that life outside the classroom is just as important as what goes on inside. Each weekday, you will participate in an extracurricular Areté class, plus, every evening, you will be able to choose from a wide range of activities from Ultimate Frisbee and field days to tie-dyeing and talent shows. In addition, time is built into the schedule to allow plenty of opportunities for you to unwind and socialize with your new friends. Not only will

you have the chance to live on a college campus, but you will also get to sample some of the many cultural and entertainment offerings of Nashville through group outings and field trips.

HOUSING

Hank Ingram House, on The Ingram Commons, will be your "home away from home" at VSA. This building combines the best of modern conveniences within an elegantly classic exterior.



This centrally air-conditioned house includes laundry facilities on the first floor and vending machines for snacks. Floors are separated by gender, and each has four communal bathrooms. Living in Hank Ingram House will give you a sneak peek into Vanderbilt's residential experience for first-year students. Learn more at commons.vanderbilt.edu.

RESIDENTIAL STAFF

Our carefully selected and trained house leadership team and proctors will supervise the residence hall and guide students through evening and weekend activities. Several VSA proctors will live on each floor near assigned same-gender proctor groups of 12–15 students. Proctor groups will meet each evening with their proctor and will enjoy occasional group outings together. Additionally, two permanent PTY administrative staff will reside in the hall to supervise the residential staff and ensure student safety.

DINING

Vanderbilt Summer Academy students will eat most of their meals in campus dining halls, which offer a wide variety of healthy and savory selections including vegetarian and vegan options. All meals served in the dining halls or at VSA-wide events are covered in the tuition. Several dining outlets sell coffee drinks and snacks during the day. Outside food purchases, such as snacks or ice cream, will be the responsibility of the student.

SAFETY, HEALTH, AND STUDENT SUPERVISION

Vanderbilt Summer Academy recognizes the importance of proper health and safety for everyone in our program. Our trained staff live in the residence hall, supervise activities, and maintain the overall well-being and safety of students during the program. Students will spend the majority of their evenings and weekends participating in supervised events and activities. Discretionary time will vary by session. The VU Police Department partners with VSA in securing the residence hall and campus. The VSA residence hall houses only program participants and authorized Vanderbilt staff. All students are provided with keys to their dorm rooms in order to allow them to secure their belongings.



“The well blended mix of class and social interaction kept me busy and on my toes the entire time!”

Because Vanderbilt Summer Academy is an opportunity to experience communal living, some of the responsibility for health and safety will rest with you. You will be informed of the program guidelines for behavior, participation, and campus boundaries in the *Vanderbilt Summer Academy Student Handbook*, which you will receive upon admission. All rules are designed to foster a healthful, respectful environment where everyone can find success and enjoyment.

In the event that you need medical attention, a staff member will accompany you to the Vanderbilt Student Health Center or the Monroe Carell Jr. Children's Hospital at Vanderbilt, depending on the situation and time of day. Both facilities are nearby. The staff member will stay with you until the situation is resolved. The Vanderbilt Summer Academy office will contact your parents or guardians and will keep them informed. VSA also has established procedures for the handling of routine medications. Details will be provided upon admission to the program.



"I really enjoyed the Areté classes because they gave me unique experiences I wouldn't have had otherwise."

ARETÉ PROGRAM

One of the highest values in ancient Greek philosophy and literature was the concept of ἀρετή (Areté, pronounced ah-reh-tay). Often translated simply as "virtue," it more accurately denotes the ideal of human excellence and well-roundedness. At VSA, we have chosen the concept as a guide to the integration of classroom learning with out-of-classroom opportunities. We want you to work hard and challenge yourself in class, but we also want you to make friends and have fun.

We will provide opportunities for you to relax and socialize on campus and to enjoy some of the sights and sounds of Nashville as well. In addition, our residential life program encourages students to share their talents and leisure interests with the VSA community. Whether you are interested in self-defense, want to learn stage combat, or seek to amaze your friends with illusions, we invite you to share your enthusiasms, hobbies, and talents with your fellow VSA students and staff.

The Areté program kicks off each weekday afternoon with specialty classes. Areté classes typically explore areas of the performing, physical, martial, and visual arts, giving you a chance to sample something new and different. They will help you transition from your busy class day into the more leisurely pace of the evening. See a sampling of Areté offerings listed below. Remember, absolutely no prior experience is necessary! Areté options are subject to change. You will receive detailed information about Areté classes in your VSA welcome packet.

Juggling

Even if you are all thumbs, you can learn to juggle! Juggling is great fun, and it also teaches you amazing hand-eye coordination. You'll wow your friends with your newfound juggling skills.

Martial Arts & Self Defense

The odds are that you'll never be attacked or mugged. Still, wouldn't it be nice to know what to do if you were? This class will teach students basic techniques drawn from different martial arts to learn effective methods of self-defense. You'll learn creative ways to disable an opponent no matter your height or body strength.

Improv

Take advantage of the moment and make people laugh. In this introduction to improvisational comedy, you will learn techniques to perfect comic timing, perform spontaneous scenes, and play off cues from your audience. Improv also teaches valuable life skills such as listening, communication and self-confidence while developing individual creativity through the use of theatre games and exercises.

Yoga

Meaning "to unite," yoga promotes balance of mind and body through a series of postures and mindful breathing. Yoga derives from an Indian spiritual tradition that is over 5,000 years old. You'll leave this class calm, centered, and energized!

And MANY more...



“The proctor groups were amazing. The classes were very interesting, and I liked meeting all my new friends.”

The Ingram Commons at Vanderbilt University



Vanderbilt leads the country in its commitment to create the best possible undergraduate learning environment. At the heart of this objective lies the mission of The Ingram Commons—a unique program designed to make the first-year experience challenging, fun, and fulfilling. This collaborative community nurtures and develops proactive, intentional learners and invites an invigorating exchange of ideas. To learn more about The Ingram Commons, please visit commons.vanderbilt.edu.

At Vanderbilt Summer Academy, you don't have to wait until you are a college student to enjoy The Ingram Commons experience. The Dean of The Ingram Commons and the staff of Vanderbilt Summer Academy have worked together to create programming designed to enlighten and to stimulate thinking for VSA students. You will have the opportunity to learn and to be inspired as you talk over the dinner table with professors from all parts of Vanderbilt University or as you share your own interests at informal colloquia that you and your friends and colleagues design. You can work together to create your own community of scholarship and fun.

COMMUNITY, CREATIVITY, CURIOSITY, COMPASSION
LIVING, LEARNING, LEADING
**THE INGRAM
COMMONS**

Session I Course Catalog

RISING 8TH GRADERS • JUNE 14–19 • \$1,295
 (For students who will be entering 8th grade in fall 2015)

We have carefully designed this one-week session for middle school students to provide plenty of exciting activities outside of the classroom. You will be able to choose from a variety of games, sports, crafts, and other activities each evening after dinner. You and your parents can rest assured that our VSA community is self-contained and well supervised. Our staff will work hard to ensure that you won't feel lost or overwhelmed during your stay at Vanderbilt. At the end of the week, you will leave with many new friends, the great satisfaction of succeeding in a fast-paced and rigorous classroom, and the wonderful feeling of being a part of Vanderbilt's community of scholars.



A DAY IN THE LIFE AT VANDERBILT SUMMER ACADEMY SESSION I*

8:00 – 8:45 a.m.	<i>Breakfast</i>
9:00 a.m. – Noon	<i>Class</i>
Noon – 1:00 p.m.	<i>Lunch</i>
1:00 – 3:00 p.m.	<i>Class</i>
3:00 – 4:00 p.m.	<i>Study Hall with TAs</i>
4:15 – 5:15 p.m.	<i>Areté Class</i>
5:15 – 6:00 p.m.	<i>Free Time</i>
6:00 – 6:50 p.m.	<i>Dinner</i>
7:00 – 9:00 p.m.	<i>Planned Recreational Activities</i>
9:00 – 10:00 p.m.	<i>Proctor Meeting and Free Time on Hall</i>
10:00 p.m.	<i>Room Curfew/ Call Parents</i>
10:30 p.m.	<i>Lights Out</i>

* Subject to change

Qualifying scores based on grade in which student took test:

7th Grade
 SAT—500 M or CR
 ACT—20 M or R

Session I Course Titles

- Intro to Nanotech
- Intro to Game Theory
- Crime and Punishment
- Philosophy
- The Spatial Age
- Magical Realism
- Math and Music
- Science of Mummies
- Volcanology
- A Case for Change
- Chemistry of Everything
- Creative Writing

A WORD ABOUT COURSE CHOICE

Courses fill quickly! Please consider your course choices carefully. While we will do our best to place you in your first-choice course, it may be filled, and we often have to place students in second- or third-choice courses. As you review these course descriptions, please rank-order as many courses as you'd like, knowing that you may not get your first choice. Your deposit becomes non-refundable once we place you in a course that you have ranked. So, rank only those courses that you are truly willing to take—and pay for!





INTRODUCTION TO NANOTECHNOLOGY

In the world of nanotechnology, less is more. This course will introduce you to the broad field of science and engineering at the atomic scale. You will explore nanoscale technology through cutting-edge examples and hands-on experience in self-assembly, surface science, molecular engineering, nanomaterials fabrication, and nanobiotechnology. We will explore questions such as: What makes certain molecules self-assemble into useful nanoscale structures? How do you design a surface to specifically detect a virus? Can we create materials that contain as much surface area as a football field in a single gram? You will discover the answers to these and other problems in the intricate science of small things.

—Ian Njoroge and Max Robinson

A great course for students who know that big ideas come in small particles.

INTRODUCTION TO GAME THEORY

Come explore the fascinating and often counterintuitive world of game theory, the mathematics of strategy and rational decision making! Humans can behave in sometimes unexpected ways. Game theory uses math to explain this sometimes quirky behavior, like why tobacco companies supported legislation banning them from advertising, or why a soccer team once tried desperately to score

on its own goal. Students in this course will learn to construct these and other scenarios in mathematical terms, to model rational behavior, and account for lack of information, all to predict (and perhaps even change) the outcome.

—Zachary Gaslowitz

A great course for strategy-minded decision makers.

CRIME AND PUNISHMENT IN U.S. HISTORY

Attitudes about criminal behavior have changed since the Puritans first put people in the stocks for skipping church and for “coarse” language. Students in this course will follow shifting patterns of crime, violence, and punishment from the colonial period to the modern era. They will engage in archival research, lively discussions, and visits to a historic prison as they work to understand how factors like age, gender, and race contributed to our modern understanding of criminals and their place in society.

—Erica Hayden, Ph.D.

A great course for students equally interested in history and sociology.

POP CULTURE AND PHILOSOPHY

Do Marvel comics teach us anything about metaphysics? What might Plato or Hobbes have to say about the popular television series *Scandal*? When we evaluate what Foucault’s account of panopticon might have to say about Facebook, students will have the opportunity to reflect

upon popular culture by way of philosophy. From exploring how the contemporary obsession with vampires (*Twilight*, *Vampire Diaries*) and zombies (*Walking Dead*, *Zombieland*) reflects Descartes' mind-body distinction, to critically examining *Keeping Up with the Kardashians* in light of existentialist philosophy, this course will provide an introduction to a range of thinkers and theories in western philosophy by way of popular culture.

—Brandy Daniels

A great course for deep thinkers with a finger on the pulse of society.

THE SPATIAL AGE: GEOGRAPHIC INFORMATION SYSTEMS AND RESEARCH

Smartphones use global positioning systems and satellite imagery to tell you where you are and how to get where you want to go, but did you know that this same technology—collectively called Geographic Information Systems, or GIS for short—is one of the most exciting new research tools in the human, social, and environmental sciences? As one researcher put it, “When you look at data spatially, you reveal things that you might not otherwise have seen.” Students in this course will learn what GIS is, how it works, and how researchers use it to collect and analyze information. They will also get a chance to apply what they have learned by collaborating to collect

georeferenced data to produce your very own maps using the same ArcGIS software employed by Vanderbilt researchers.

—Emily Burchfield

A great course for anyone who wants to take a close look at the big picture.

MAGICAL REALIST LITERATURE

Magical realism is a distinctly Latin American fiction genre that mixes stark reality with elaborate fantasy in order to show us that the ordinary can be truly miraculous. In this course, we will read and analyze novels and short stories from the magical realist genre in light of historical events occurring in a specific place and time. Such departures from realism speak to a particular cultural voice and context, and as we delve into literary works of magical realism, we will examine the many ways that literature can reflect and alter historical memory.

—Nicolette Kostiw

A great course for avid readers who savor the ordinary within the extraordinary.

MATH AND MUSIC

The dance between math and music is an intricate one. From Brahms to the Beatles, Bartók to Ben Folds, the points at which mathematics and music collide open up both worlds as expressions of beauty and wonder. This





course will examine topics such as set theory, musical scales, frequency, matrices, serialism, compositional techniques, and the Fibonacci sequence to help students to reach a synthesis between the fields of math and music. A musical background is helpful but not required.

—Dawson Gray

A great course for music lovers with a penchant for math.

THE SCIENTIFIC STUDY OF MUMMIES

Most people associate mummies with ancient Egypt, but mummies can be tied to numerous cultures and eras. Mummification can even occur naturally in the high altitudes of the Andes or in the peat bogs of Europe. Students in this course will learn how mummies are made, what prehistoric cultures thought about the act of mummification, and how to quantify the valuable scientific information that mummies hold for research in anthropology and biomedicine.

—Amanda Winburn

A great course for hunters of historical clues, just beneath the surface.

VOLCANOLOGY

Volcanic eruptions are some of the most dynamic and exciting phenomena on Earth. Not only have volcanoes played an important role in shaping our planet, they are also responsible for providing humans with unique environments in which to live—sometimes with disastrous consequences. We will use a variety of hands-on activities and experiments, combined with online modules and short discussions, to explore the inner workings of volcanoes and to consider how they shape our world and the people who live in it.

—Tenley Banik

A great course for people who want to understand the inner forces of our ever-changing world.

A CASE FOR CHANGE

So, you want to make a difference in the world? Here's your chance. Participants in this course will research multiple sides of contemporary social issues and learn to apply Aristotelian rhetoric to make and defend their arguments.

Students will learn some fundamentals of public speaking, but more importantly, they will learn how to develop compelling arguments to affect change on issues that matter to them.

—Prof. John English

A great course for lovers of logic and rhetoric who want to make a difference in the world.

THE CHEMISTRY OF (ALMOST) EVERYTHING

It's possible that chemistry might spring to mind when we crack the center of a glow stick to "turn it on" or open up an air-activated hand warmer packet on a cold winter's morning, but chemistry is *everywhere*, shaping our lives in ways we don't often consider. Chemistry is in the microwaves you use to heat your food, it's in the carpet under your feet, and it's in the lights over your head. Through hands-on activities with everyday objects, students in this course will gain a greater understanding of fundamental concepts in organic, inorganic, and physical chemistry. Like chemists, you will begin to see vibrational energy states, redox reactions, and thermodynamics in (almost) everything.

—Clayton Wandishin

A great course for chemists seeking to understand the hidden complexity of the world around them.

ELEMENTS OF FICTION: CREATIVE WRITING IN ALL ITS GENRES

You might have the most creative characters, the most vivid settings, or the most elegant prose, but if you don't have plot, you don't have a story. In this course, we will look at a wide array of story arcs—everything from songs and videos, to movies, books, and even Internet memes—to figure out how the "big picture" of the story you want to tell informs character, dialogue, imagery, and tone. Students in this course should expect creative collaboration and thoughtful constructive criticism to help them reflect and improve upon their own writing. Through writing exercises, workshop, and revision, students will hone their writing craft with clarity and purpose.

—Quincy Rhoads

A great course for those who write with passion but edit with precision.

Session II Course Catalog

RISING 9TH AND 10TH GRADERS • JUNE 21–JULY 3 • \$2,350

(For students who will be entering 9th or 10th grade in fall 2015)

Qualifying scores based on grade in which student took test:

7th Grade

SAT—500 M or CR
ACT—20 M or R

8th Grade

SAT—550 M or CR
ACT—22 M or R

9th Grade

SAT—590 M or CR
ACT—25 M or R

If you have taken the PSAT, add a zero to get your SAT score.

Session II Course Titles

The Making of MLK Jr.
Abstract Algebra
Anti-Semitism and Comic Heroes
Human Geography
Music and Cognition
Archaeological Chemistry
Magical Realism and History
Game Theory
Microbiology and Immunology
Rhetoric and Advocacy
Astronomy
Nanotechnology

For students who will be going into 9th and 10th grades, Session II strives to reach the right combination of free time coupled with structured activities outside of class, allowing you to choose recreational and social experiences that appeal to you. On the Session II weekend, we will arrange outings around Nashville and possibly an all-VSA recreational outing such as ice skating or laser tag. Throughout your

session, you will also find a diverse selection of unique evening activities from seminars on choosing a college to intramural Ultimate Frisbee competitions to film screenings to just hanging out with your new friends. Our goal is for VSA Session II students to experience an age-appropriate sampling of campus life, living in a residence hall and creating a close-knit community among like-minded peers.



A DAY IN THE LIFE AT VANDERBILT SUMMER ACADEMY SESSION II**

Weekday Schedule

8:00 – 8:45 a.m.	<i>Breakfast</i>
9:00 a.m. – Noon	<i>Class</i>
Noon – 1:00 p.m.	<i>Lunch</i>
1:00 – 3:00 p.m.	<i>Class</i>
3:00 – 4:00 p.m.	<i>Study Hall with TAs</i>
4:15 – 5:15 p.m.	<i>Areté Class</i>
5:15 – 6:00 p.m.	<i>Free Time</i>
6:00 – 6:50 p.m.	<i>Dinner</i>
7:00 – 9:00 p.m.	<i>Recreational Activities</i>
9:00 – 10:00 p.m.	<i>Proctor Meeting and Free Time on Hall</i>
10:00 p.m.	<i>Room Curfew*</i>
10:30 p.m.	<i>Lights Out*</i>

* *Room Curfew and Lights Out times may be extended on Friday and Saturday nights.*

** *Subject to change*

A WORD ABOUT COURSE CHOICE

Courses fill quickly! Please consider your course choices carefully. While we will do our best to place you in your first-choice course, it may be filled, and we often have to place students in second- or third-choice courses. As you review these course descriptions, please rank-order as many courses as you'd like, knowing that you may not get your first choice. Your deposit becomes non-refundable once we place you in a course that you have ranked. So, rank only those courses that you are truly willing to take—and pay for!



THE MAKING OF MARTIN LUTHER KING JR.

Martin Luther King Jr. did not become a leader in the American civil rights movement by accident. King was also an author, preacher, and intellectual. Students in this course will closely examine the cultural, religious, and intellectual resources that made King who he was. We will study how his ideas about the social role of religion were shaped by Judeo-Christian resources (e.g. the Hebrew prophets, Aquinas, and American Evangelicalism), western philosophical streams (e.g. Plato, Hegel, and Kant), early-modern dissenting traditions (e.g. Thoreau, Tolstoy, and Mandela), as well as the African American leaders who came before him (e.g. DuBois, Washington, and Garvey). We will, of course, review and analyze King-led civil rights campaigns staged in various American cities. The course will end by exploring contemporary ethical issues through insights derived from King's speeches and writings.

—Aaron Howard

A great course for scholars who dream of social justice.

ABSTRACT ALGEBRA: PERMUTATIONS, SYMMETRIES, AND "SPACE DONUTS"

What if chess were like Pac-Man? What if you could move your rook off the board and have it come out on the other side? Group theory is the branch of mathematics that considers these types of questions. Normally, college math majors learn about group theory in their junior year. In this course you will get an introduction to fundamental concepts in group theory, such as dihedral groups, permutations, symmetries, and even a "space donut." Group theory has broad applications in organic chemistry, programming, and theoretical physics. This class involves a lot of group collaboration to solve difficult, nonstandard mathematical problems.

—Jason Brasel

A great course for math lovers who don't mind a challenge.

ANTI-SEMITISM AND COMIC BOOK HEROES

Did you know that comic book heroes have fought more than just crime? In the early days of comics, talented Jewish artists drew upon symbolism from the Bible and Jewish lore to battle anti-Semitism at home and abroad. Students in this course will traverse this little-known history of the graphic novel. They will



learn essential skills of literary analysis, so they can venture into the world equipped to engage with the works of modern authors and artists. Students will see how modern artists draw upon the tropes of not only Judaism but many world religions in the battle for truth and justice in our own time.

—Chris Paris, Ph.D.

A great course for justice-seekers with a penchant for modern mythology.

STORIES UNTOLD: FRONTIERS IN HUMAN GEOGRAPHY

Every place has a story. Actually, it has lots of them! There is the official version of events—the story told by high school history books and tourism bureaus—and then there are the stories that not many people talk about or know. In this class, you will engage in human geography to find and tell those stories. With special emphasis on the music and civil rights histories of Nashville, coursework will investigate new ways of accessing and using professional archives (e.g. the Nashville Public Library and Country Music Hall of Fame) and personally curated media. Lab work will focus on the spatial analysis of Nashville through developing tools (e.g. Google MyMaps and ESRI Story Maps). The work you do in the field will help to develop technology-augmented walks that digitally tap into archives rich with musical and political heritage. Together, we will uncover the social forces that help to shape our city.

—Kevin Leander, Ph.D., with other faculty and graduate students from the Department of Teaching and Learning

A great course for technology-driven storytellers who investigate the past to understand the present and want to know more about Music City.

MUSIC AND COGNITION

Your brain is active when you are making music. It doesn't matter if you are playing in an orchestra or singing in the shower, music engages your auditory and motor systems, activates your emotional centers, and elicits memories and associations based on past musical experience. By engaging in experiential activities that demonstrate principles of psychology and cognitive studies, students in this course will come to understand how music affects the mind and body, memory,

emotion, and social behavior. We will conclude by working together to develop a multimodal presentation that connects the latest research to your own life. Perfect pitch not required!

—Sara Lynn Beck & Aysu Erdemir

A great course for music lovers who match science and melody note for note.

ARCHAEOLOGICAL CHEMISTRY

Archaeologists don't just dig things out of the ground. They also spend valuable time in the lab analyzing bone, teeth, soil, pottery, and other materials they find. Archaeologists used chemical analysis of artifacts to learn that the Ötzi "Ice Man" discovered in Italy was over 3,000 years old, or what food a clay pot held thousands of years ago. For more modern investigations, the FBI utilizes chemical analysis to identify stolen art and artifacts. By looking at these and other case studies, students in this course will gain an understanding of the ways archaeologists use chemical analysis to understand the past. From the reconstruction of migration patterns and survival techniques of ancient individuals to the origins of ancient artifacts, archaeological chemistry sheds light on the previously unknown.

—Amanda Winburn

A great course for students looking for the chemical keys to unlock the secrets of the near and ancient past.

MAGICAL REALISM AND HISTORICAL MEMORY

The magical realist author Carlos Fuentes once said that the "real historians" in Latin America were its novelists. Magical realism is a distinctly Latin American fiction genre that mixes stark reality with elaborate fantasy in order to show us that the ordinary can be truly miraculous. In this course, we will test Fuentes' claim by reading magical realist novels and short stories as a window into Latin American history, life, and culture. In particular, we will consider how this genre speaks to a particular cultural voice and context in order to examine the many ways that literature can reflect and alter historical memory.

—Nicolette Kostiw

A great course for lovers of literature, with an interest in history, who find truth in the impossible.

GAME THEORY

Game theory is the mathematics of strategy and rational decision making. Basically, it uses math to try to understand and respond to human behavior. Sometimes this behavior can be a bit “quirky,” such as when a soccer team once tried desperately to score on its own goal. We will learn how to construct scenarios like this (including more common situations) in mathematical terms, model rational behavior, and account for what we don’t know in order to predict and achieve the best possible outcome.

—Zachary Gaslowitz

A great course for the strategically minded math lover.

MICROBIOLOGY AND IMMUNOLOGY*

When you were little, your parents might have told you that germs can make you sick, but the full story is more complex. In truth, you have more microbes inside you than human cells. These microscopic organisms (microbes) both harm and help the human body. Students in this course will learn how microbes and the body interact, keeping you healthy or making you sick. Students will observe the workings of an infectious disease lab at Vanderbilt University (learning and practicing standard safety protocol with only strains approved by a biosafety officer). Students will also discuss contemporary social issues that surround the ways modern medicine both treats and prevents microbe-related diseases.

—Holly Algood, Ph.D. and Jen Gaddy, Ph.D.

A great course for future doctors, research scientists, and people fascinated by the microbial world of the human body.

***Prerequisite:** Biology. **Additional application materials:** transcript. **Applicants who have not taken biology should (1) include work samples demonstrating a thorough grasp of cellular biology and (2) make a strong case in their application essay for their enrollment.**

RHETORIC AND ADVOCACY

How does one effectively advocate for change? This course will help students apply Aristotelian rhetoric to influence political, economic, and social change. They will identify and research multiple sides of contemporary social issues, make their case, and defend it. While students will learn some fundamentals of public speaking, more importantly, they will learn how to think critically, argue effectively, and mobilize support for the matters that matter to them.

—Prof. John English

A great course for world-changers who love a well-researched argument.

ASTRONOMY OF GALAXIES

Our solar system is just one of billions within our Milky Way Galaxy. Our Milky Way Galaxy is just one of billions within the universe. In this course, we will study the observational and the theoretical of galaxies in our universe. We’ll cover the major types and the component parts: gas, dust, stars, supermassive black holes, dark matter, etc. We’ll use freely available observational data and physics to aid our quest. Using eight-inch telescopes at night, we will investigate some component parts of our own Milky Way Galaxy. By the end of this session, you will be able to present a poster answering a research question you design.

—Erika Grundstrom, Ph.D.

A great course for expansive thinkers who revel in the vastness of outer space.

NANOTECHNOLOGY AND ENGINEERING

The “next big thing” in engineering isn’t big at all. Nanotechnology is revolutionizing how we interact with our own world. With a focus on two broad topics, energy and health, students will conduct hands-on experiments that will help them understand how nanotechnology makes lifesaving drugs more effective, converts solar energy into electrical power, and much more.

—VINSE Faculty, including Greg Walker, Richard Haglund, Sandra Rosenthal, Jason Valentine, David Cliffler, Cary Pint, and Risia Bardhan.

A great course for students who use science to solve problems.

This course has a special scholarship fund for Tennessee residents who meet certain criteria. To apply, go to pty.vanderbilt.edu/cms/wp-content/uploads/Scholarship-Eligibility-Assessment.pdf.

“I greatly enjoy the in-depth study ... I would never get to learn about this in my regular school.”

Session III Course Catalog

RISING 11TH AND 12TH GRADERS • JULY 12–31 • \$3,450

(For students who will be entering 11th or 12th grade in fall 2015)

Qualifying scores based on grade in which student took test:

7th Grade

SAT—500 M or CR
ACT—20 M or R

8th Grade

SAT—550 M or CR
ACT—22 M or R

9th Grade

SAT—590 M or CR
ACT—25 M or R

10th Grade

SAT—630 M or CR
ACT—27 M or R

11th Grade

SAT—670 M or CR
ACT—29 M or R

If you have taken the PSAT, add a zero to get your SAT score.

Session III Course Titles

Medicine Health and Society
Slave Religion/Culture
Knot Theory
Psychology and Media
Magical Realism and History
Med School 101
Science of Film
Astronomy: Galaxies
Special Topics in Math
Forensics and Bioarchaeology
Agents of Change
Fantasy Writing

Designed especially for our older students, VSA Session III models itself on The Ingram Commons, Vanderbilt's new concept of campus living designed to create community, develop responsibility, and foster the growth of each individual. To promote these goals, students in Session III have more free time and greater discretion in how to use it. After the first week, you will have the option to sign out and go off campus to nearby Hillsboro Village.

You'll be able to sign up for weekly workshops and seminars on a range of topics, which could include anything from bioethics to the latest cultural phenomena. You'll also have plenty of time to hang out in The Commons Center, engaging in discussions or just enjoying an espresso and a game of foosball with your fellow VSA students.

Weekends feature dances, group outings, inter-house competitions, talent shows, and much more. On Sunday mornings, you'll have the option of attending religious services or sleeping until 11:00 a.m. Sunday afternoons and evenings are set aside for doing laundry, catching up on class readings, or enjoying a variety of informal activities or small-group outings designed to relax and prepare you for the week ahead.

A DAY IN THE LIFE AT VANDERBILT SUMMER ACADEMY SESSION III**

Weekday Schedule

8:00 – 8:45 a.m.	<i>Breakfast</i>
9:00 a.m. – Noon	<i>Class</i>
Noon – 1:00 p.m.	<i>Lunch</i>
1:00 – 3:00 p.m.	<i>Class</i>
3:00 – 4:00 p.m.	<i>Study Hall</i>
4:15 – 5:15 p.m.	<i>Areté Class</i>
5:15 – 6:00 p.m.	<i>Free Time</i>
6:00 – 6:50 p.m.	<i>Dinner</i>
7:00 – 9:30 p.m.	<i>Free Time (Mon.–Thurs.) or VSA-sponsored seminars, activities, and outings</i>
9:30 – 10:30 p.m.	<i>Proctor Meeting and Free Time on Hall</i>
10:30 p.m.	<i>Room Curfew*</i>
11:00 p.m.	<i>All Quiet*</i>

* *Later Curfew/All Quiet on weekends*

** *Subject to change*





CHOOSING AND APPLYING TO YOUR SESSION III COURSE

All Session III courses are filled first-come, first-served, based on eligibility. However, in some instances, VSA may make minor adjustments to balance course enrollments. As you read through the course listings on the following pages, you'll see that certain courses have prerequisites and/or require supplemental application materials. For example, students applying to Med School 101 must submit an official transcript along with two letters of recommendation. Students applying to a math or science course may also be asked to submit an official transcript so that instructors can determine students' levels of exposure to the subject area. Some courses will not require any additional application materials. Again, see course listings for details. All applicants must submit the completed application form and two essays.

COLLEGE PREPARATION

Many of our Session III students are thinking about the prospect of applying to college. Because this prospect can be extremely daunting, Vanderbilt Summer Academy provides a range of opportunities to aid you as you prepare for your journey. You will have the opportunity to participate in a mock admissions committee led by counselors from Vanderbilt's Office of Undergraduate Admissions. These

sessions aim to demystify college admissions procedures, preparing you to approach the process with confidence. You'll learn what admissions professionals look for upon first readings of applications; how essays, grades, recommendations, and test scores figure into the admissions equation; and how admissions offices go about crafting an incoming class.

We want to help you learn what it takes to be successful in a university setting. We will provide opportunities for you to hear from current Vanderbilt undergraduates about the realities of college life. Your proctors will discuss topics such as the pinnacles and pitfalls of the first year, how to handle academic stress, and basic principles of good time management and self-responsibility.

In addition to formally organized sessions, you will have many opportunities to get the real truth about college life from your VSA proctors, most of whom are current Vanderbilt students. They are excellent sources of first-hand information for you, and they will provide you with thoughtful commentary and discussion on many aspects of the college experience.

Your exceptional academic abilities will afford you numerous options. At VSA, we want to help you cultivate the habits of mind that will lead you to success in whatever choice you make about college and your future.

A WORD ABOUT COURSE CHOICE

Courses fill quickly! Please consider your course choices carefully. While we will do our best to place you in your first-choice course, it may be filled, and we often have to place students in second- or third-choice courses. As you review these course descriptions, please rank-order as many courses as you'd like, knowing that you may not get your first choice. Your deposit becomes non-refundable once we place you in a course that you have ranked. So, rank only those courses that you are truly willing to take—and pay for!

MEDICINE, HEALTH, AND SOCIETY

Explore the multidimensional world of medical anthropology. Learn how disease, health, and healing are culturally constructed. Students will learn how culture can influence the diagnosis and treatment of disease as well as the formation of ideas about the human body. We will begin our journey into medicine health and society by examining the differences between Western biomedicine and non-Western ethnomedicine using case studies from various cultures in Latin America, Asia, and Africa. Students will participate in projects specifically designed to emphasize newly learned concepts and the cultural differences in medical systems.

—Monte Hendrickson

A great course for future anthropologists interested in medicine and future doctors interested in anthropology.

SLAVE RELIGION: UNDERSTANDING SOUTHERN RELIGION AND CULTURE

This course covers the history of Southern religion and culture from the colonial period to the present, with an eye toward the way the institution of slavery shaped the South and continues to influence it today. We will begin by looking at the establishment of Anglicanism, followed by the dominance of the Baptist-Methodist tradition, and with special focus on the development of slave religion and the way these traditions continue to shape the South and its perspectives on race, gender, social norms, politics, and church-state issues. We will also learn to use the tools of critical theory in the

study of religion, which has broad applications in history, literature, and sociology, to name a few.

—Aaron Howard

A great course for scholars interested in history, religion, and social justice.

MUCH ADO ABOUT KNOTTING*

With applications in genetics, astronomy, and the emerging science of quantum cryptography, it is not hard to see why knot theory is one of the most exciting fields in mathematics today. Students in this course will learn about mathematical knots and use Reidemeister's Theorem to help them construct simple knot invariants, and apply a bit of their know-how to yet unsolved problems in knot theory (e.g. the "matchstick problem"). Usually introduced to math and science majors around the second year of college, knot theory is sure to expand even the most mathematical minds.

—Johanna Strömberg

A great course for students who love problem solving and paradoxes.

***Prerequisites:** Algebra I, Geometry, and Algebra II.
Supplemental Application Materials: Transcript

PSYCHOLOGY AND MEDIA

Students in this course will learn about psychology by comparing its portrayals in media (literature, social media, television, and more) to what the scientific evidence actually says. We will explore topics such as psychiatric disorders, developmental disabilities, and acts of violence and abuse. Students will also weigh the positive and negative repercussions of our mass familiarity with mental health issues through the way it is depicted in books, social media, television, music, and other forms of expression.

—Michelle Reising, Ph.D.

A great course for those drawn to the intricacies of psychological fact through the lens of fiction.

LATIN AMERICAN HISTORY IN MAGICAL REALISM

Magical realism is a distinctly Latin American fiction genre that mixes stark reality with elaborate fantasy in order to show us that the ordinary can be extraordinary. In this course, magical realist fiction will offer us a window into



Latin American history, life, and culture. The novels and short stories we read will take us into the historical trials and triumphs of the people who wrote them. Such departures from realism, which speak to a particular cultural voice and context, will also give us the opportunity to explore, in depth, the relationship between historical memory in literature and “official” versions of events.

—Nicolette Kostiw

A great course for lovers of literature and history who find truth in fiction and beauty in the impossible.

MED SCHOOL 101*

Vanderbilt University Medical Center (VUMC) is one of the top hospitals in the country, so it is no surprise that VUMC’s medical school is at the forefront when it comes to technology and teaching. Students will work with many of the same computer and other virtual medical simulations as Vanderbilt medical students, and they will use problem-based learning to analyze and diagnose real medical case studies. Taught by a team of medical students, this course will utilize small group discussions, faculty lectures, lab exercises, and the latest resources and technologies from the Vanderbilt School of Medicine to learn about the practice, ethics, and social impact of modern medicine.

Please note: VUMC insurance and safety regulations state that students must be 16 years old by July 7 to participate. Programs for Talented Youth has no say in this policy.

***Prerequisites:** Biology, Chemistry.

Supplemental Application Materials:

Transcripts; 2 letters of recommendation. Please visit the pty.vanderbilt.edu/cms/wp-content/uploads/VSATeacherRecForm.pdf to download the recommendation form.

—Instructors TBD

A great course for students who want to learn about what it means—practically and ethically—to be a doctor today.

THE SCIENCE OF FILM

What do you see when you watch *Citizen Kane*? A masterpiece of storytelling about hubris and loss—or a long series of still black-and-white images flashing past at 24 frames per second? (Trick question, it’s both!) We get so caught up in movies that we often forget how strange they are. This course combines physiology,

psychology, and neuroscience to find out what’s really going on in films. Students will tackle projects that highlight visual illusions, storytelling, filmmaking, and experimental design, and will have the opportunity to write and direct short films based on their studies.

—Lewis Baker

A great course for scientific cinephiles.

GALAXIES AND THE STRUCTURE OF THE UNIVERSE

In a universe full of wonder, astronomers use knowledge of light, physics, and statistics to design computer models to try to explain what is observed by telescopes. In this course, we will utilize open access observational data to probe the various types, component parts (gas, dust, stars, supermassive black holes, dark matter, etc.), and locations of galaxies. We will learn what all of this can tell us about the origin and structure of our universe. Using eight-inch telescopes at night, we will investigate first hand some component parts of our own Milky Way Galaxy. This course will culminate with a poster presentation that addresses a research question of your own design.

—Erika Grundstrom, Ph.D.

A great course for stargazers who revel in the vastness of outer space and the wonders of our universe.

SPECIAL TOPICS IN MATHEMATICS*

This course offers a unique opportunity for highly motivated students to expand their knowledge and comprehension of math. Students will push the limits of their understanding through whole-group discussion as well as independent work. Students will leave this class with a sampling of higher-level topics, a deeper understanding of the math they have already learned, and an increased awareness of how math is used in the world today.

—Dawson Gray

A great course for confident mathematicians looking for their next big challenge.

***Prerequisites:** Algebra I, Geometry, and Algebra II.

Supplemental Application Materials: Transcript



“My class presented me with engaging activities and material that pushed me to work hard and think critically.”



FORENSICS AND BIOARCHAEOLOGY

Scientists who study human remains at modern crime scenes (forensics) and ancient burial sites (bioarchaeology) read the stories inscribed in bones to reconstruct the recent and remote past. This fast-paced course will teach students the methods and techniques forensic anthropologists use to determine everything from age and gender to geographic ancestry and the cause and manner of death. Students will work with real human bones in Vanderbilt's Osteology Lab, conduct hands-on experimental research in forensic science, and tour the DNA and isotopic chemistry facilities at Vanderbilt University. By the end of this course, students will be able to weave together multiple lines of evidence—skeletal, chemical, and contextual—to read the stories written in our bones.

—Alicja Lanfear, Ph.D., and Matt Velasco

A great course for budding anthropologists suspicious of crime scene television shows.

AGENTS OF CHANGE

So, you want to make a difference in the world? Students in this course (modeled after a popular Vanderbilt freshman seminar) will combine the genius of Aristotelian argumentation with modern research tools and communication techniques to learn how to affect political, economic, and social change. They will select and investigate hot-button social issues from multiple perspectives, and students will learn how to make and defend their case in a cogent

and convincing manner. Students can expect to polish their public speaking skills, but more importantly, they will learn how to think critically, argue effectively, and mobilize support for the matters that matter to them.

—Prof. John English

A great course for future lawyers, politicians, community activists, and anyone else who wants to change the world.

WRITING FANTASY FICTION

Alice was bored on a hot afternoon—bored with her life, bored with her older sister. She was bored, that is, until she saw a white rabbit carrying a large watch and chain. So begins the modern fascination with the fantastic and the extraordinary, the hero's quest to find a way out of Wonderland and return home. We love the magic realms of Alice, Harry Potter, and Frodo Baggins and secretly wish we could find them, too. But do we have what it takes as writers to create magical, mysterious worlds ourselves? Join the quest not just to read classic works of fantasy, but also to begin writing a classic of your own. In this course, we will experiment with short stories, novels, and poems. You will produce a portfolio of creative writing that will set you on the path to discover the secret worlds hidden in your imagination. Suzanne Collins and J.K. Rowling, beware!

—Jan Harris, Ph.D.

A great course for story weavers who venture deep into Middle Earth or fly toward futures untold.



Vanderbilt Summer Academy Faculty

Holly Algood is an assistant professor with the Departments of Medicine and Pathology, Microbiology and Immunology at Vanderbilt University School of Medicine. Her lab researches the body's immune response to bacteria which can chronically infect humans including *Helicobacter pylori*, a pathogen which can lead to peptic ulcers and gastric cancer, and *Mycobacterium tuberculosis*, a pathogen which compromises lung function. Her long-term research interests involve understanding the interactions between disease-causing pathogens, the immune system, and normal microbes found inside the human body. Algood received her Ph.D. from the University of Pittsburgh in 2003, and her research has appeared in *The Journal of Immunology* and *PLoS Pathogens*.

Lewis Baker is a doctoral candidate in psychology and cognitive neuroscience at Vanderbilt University. His research looks at our ability to perceive, attend to, and remember everyday events. These studies investigate why we often miss what's right in front of our noses, like with magic tricks, misdirection, movie editing, or just "zoning out." A graduate of Loyola New Orleans, he frequently uses his practical experience in acting, directing, and film in his research. He is a graduate research fellow of the National Science Foundation.

Tenley Banik is a doctoral candidate in earth and environmental sciences at Vanderbilt University. Her current research involves investigating how and why magma compositions in Iceland have changed through Iceland's 20 million year history. She has traveled all over the world studying volcanoes and their eruptive products. In her free time she enjoys playing soccer, running, knitting Icelandic-style sweaters, and spending as much time as possible in Iceland.

Jason Brasel is a native Californian and recent Nashville transplant. He studied mathematics at the University of California, Berkeley, and taught high school mathematics for six years in his hometown of Sacramento. He is now a third-year doctoral student at Vanderbilt's Peabody College, studying mathematics education with a focus on teacher education and development. In his free time he enjoys hanging out with his wife and riding and racing bicycles.

Emily Burchfield is a doctoral candidate in environmental engineering, policy and

management at Vanderbilt (her undergraduate and masters degrees are in economics). She currently uses satellite imagery and Geographic Information Systems to study water management in Sri Lanka. She is very interested in how communities cooperate to manage scarce natural resources efficiently and equitably. Emily loves traveling, old maps, gardening, hiking in the Appalachian Mountains, and teaching.

Brandy R. Daniels is a doctoral candidate in theological studies at Vanderbilt. Her research is on the intersections of spiritual formation, theological method, and feminist accounts of identity and community. Brandy has two bachelor's degrees in religion and psychology from Azusa Pacific University, and an M.Div. as well as an M.A. in comparative literature and African American studies from Duke. In her free time, Brandy enjoys running, hiking, watching Jeopardy, and eating ice cream.

John English is a senior lecturer in communication studies at Vanderbilt University. He is a nationally recognized communication consultant and motivational speaker who specializes in executive presentation skills, sales training, speech writing, and marketing communications. He has received the Harriet S. Gilliam Award for Excellence in Teaching and was recognized by the International Churchill Society for his outstanding class on "The Visionary Rhetoric of Sir Winston Churchill."

Aysu Erdemir is a doctoral candidate in psychology and human development at Vanderbilt, with undergraduate degrees in philosophy and classical piano performance. Her main interest area is how perception and action are linked together and act as a coordinated system, with a special focus on music. She has long been passionate about understanding how music affects the brain and the intrinsic relationship between music and movement. She has studied sensory-motor coordination and feedback mechanisms during singing. Currently, she is investigating the cross-modal matching between gesture and sound through use of detailed acoustic analysis methods and high-resolution motion-capture.

Jennifer A. Gaddy is a microbiologist at Vanderbilt University, and her research focuses on how bacterial pathogens modulate virulence and survive the stress imposed by high or low metal concentrations within a vertebrate



“I rarely have the ability to interact with individuals on my academic level in school, so talking to, working with, learning from, and becoming friends with the students here was a great experience.”

host. Dr. Gaddy uses high-resolution imaging techniques such as electron microscopy and confocal laser scanning microscopy to visualize host-pathogen interactions, and her mantra is “a picture is worth a thousand words.” In her spare time, Dr. Gaddy likes to read fiction about dystopian future civilizations and prepare for the impending zombie apocalypse.

Zachary Gaslowitz is a mathematics Ph.D. student here at Vanderbilt. He has long been passionate about discrete mathematics and math education, and he can metaphorically talk your ear off about the fascinating mathematics behind different possible ways of voting. Apart from academics, he enjoys juggling, climbing trees, cooking curries, and crafting lampworked glass art.

Dawson Gray is in his eleventh year with Vanderbilt Programs for Talented Youth. After graduating from Vanderbilt University with a double major in piano performance and mathematics, Gray completed a master’s degree in education at Vanderbilt’s Peabody College, where his major focus was secondary education with an emphasis on math. He currently teaches calculus and statistics at Battle Ground Academy in Franklin, Tennessee, where he also serves as the Mathematics Department Chair for grades 5–12.

Erika Grundstrom loves sharing the wonder of the universe with everyone young and old and has done so for seven years with Programs for Talented Youth. She is the director of astronomy labs and outreach in the Department of Physics and Astronomy at Vanderbilt University, and her research combines interests in massive stars, spectroscopy, and astronomy education. Hard work resulted in a Ph.D. from Georgia State University in 2007. Astrophysics has taken Dr. G all over the U.S. and the world. Education and outreach have brought her (and often a planetarium) into schools throughout the Nashville region as well as opportunities to develop and teach curriculum for fifth-, sixth-, and ninth-grade students.

Jan Harris is a poet, an avid reader, and an accomplished VSA instructor whose popular courses have included Writing and Visual Literacy and Creative Writing: Autobiography. She received her Ph.D. from the University of Alabama in 2008. Harris is a published author whose poetry has appeared in *Anthology* and *Event*.

Erica Hayden earned her Ph.D. from the Vanderbilt Department of History in 2013 and is currently an assistant professor of

history at Trevecca Nazarene University in Nashville, Tennessee. Her research interests include nineteenth-century American history, particularly women’s history, the Civil War and Reconstruction eras, and the history of crime and punishment. Her dissertation examined the experiences of female criminals as offenders and inmates in Pennsylvania before the Civil War. She has been published in *Pennsylvania History: A Journal of Mid-Atlantic Studies* and the encyclopedia series *The Social History of Crime and Punishment in America*.

Monte Hendrickson is a Ph.D. candidate in the Department of Anthropology at Vanderbilt University and has an M.A. in sociology. Over the last two years, she conducted 16 months of fieldwork in the Brazilian Amazon examining the paradox of “sustainable consumption” of internationally exported, environmentally friendly rainforest products. Her research specifically addresses children’s labor contributions in the production of the highly popular Amazon berry, açai, and how its increasing global demand affects children’s health, education, and well being in the communities of Currallinho and Gurupá, Pará. Monte has taught cultural anthropology courses at Sewanee: The University of the South and various courses over the last four years for Vanderbilt’s Programs for Talented Youth.

Aaron Joshua Howard is a lecturer in the religious studies department at Vanderbilt and a Ph.D. candidate in ethics and society. His research interests include the relationship between religious experience and ethics, and the ways in which faith communities engage with the cultural norms and values of the larger society. He enjoys spending time with his wife and two children, watching NFL and college football, playing piano, and running with his English setter named Palmer.

Jennifer Kahn is a third-year doctoral student in the learning sciences in the Department of Teaching and Learning in Peabody College at Vanderbilt University, with undergraduate degrees in learning and organizational change and history from Northwestern University. Her research interests include how designed environments and new technologies support (or impede) learning from an interdisciplinary perspective and how youth learning develops through relationships to place and space. She is currently investigating how storytelling practices, along with access to open data and interactive digital visualization tools, can encourage youth

to engage critically with big data models and to draw relationships across scales—between their personal, local experiences and larger social, economic, and historical issues being described by aggregated big data sets. She is also a Public Scholar Fellow with Vanderbilt's Curb Center for Art, Enterprise, and Public Policy.

Nicolette Kostiw is a Ph.D. candidate in Latin American history, with a focus on modern Brazil. Her dissertation, "Child and Citizen: The Tutelage of Minors, Slavery, and Transition in Rio de Janeiro, 1871–1900," was awarded the 2012 Ida B. Wells Dissertation Prize from the Coordinating Council for Women in History (CCWH). She was awarded a NSEP / IIE Boren Fellowship for the 2010–2011 academic year and conducted dissertation research for ten months in Rio de Janeiro, Brazil. She was also the recipient of a James and Sylvia Thayer Short-Term Research Fellowship and did research in UCLA's Special Collections in January 2012. She authored several entries in the *Dictionary of Caribbean and Afro-Latin American Biography* from Oxford University Press (forthcoming 2014).

Sara Lynn Beck is a doctoral candidate in developmental psychology at Vanderbilt University. Her research interests relate to music cognition in children; specifically, she studies children's singing and the perceptual processes related to learning to sing, as well as the impact of joint music making on preschoolers' prosocial behavior. She's particularly interested in how music making engages multiple body systems including the motor system, the auditory system, and the emotional centers of the brain. Before beginning her graduate work, she spent ten years as a studio singer, songwriter, and recording artist, releasing five albums and touring internationally.

Alicja Lanfear earned her Ph.D. from the University of Tennessee, Knoxville, in biological anthropology in 2012 and is currently a lecturer in the Biology Department at Middle Tennessee State University. She recently co-authored a technical report, *Testing the Validity of Radiographic Comparisons in Positive Identifications*, and has published or presented research describing decomposition in outdoor hanging contexts, demonstrating the presence of gunshot primer residue on bone, describing secular trends and region-specific variation in the Polish population before, during, and after WWII, as well as identifying chronological changes in the auricular surface of the sacrum.

Ian Njoroge is a second-year Ph.D. student in the Chemical and Biomolecular Engineering Department. He is currently performing research in the area of surface engineering, in particular in the design and fabrication of surfaces that exhibit excellent lubrication and wear properties.

Chris Paris has served as a lecturer at Vanderbilt Divinity School, teaching courses on biblical literature, the Bible and popular culture, and leadership in the Bible. Chris has a doctorate in religion from Vanderbilt University where his studies focused on the Hebrew Bible, the ancient Near East, and Jewish studies. His research examines narrative criticism of the Bible. He especially enjoys studying the Scripture's influence on Western civilization and is always on the lookout for biblical references in literature, movies, television shows, music, and comic books.

Alvin Pearman is a graduate student at Vanderbilt's Peabody College. His research focuses on the intersection of poverty, race, and resilience in the context of learning and human development.

Michelle Reising is a licensed clinical psychologist and an assistant professor of the practice in the Department of Psychology and Human Development at Vanderbilt. She completed her Ph.D. in Vanderbilt's Clinical Psychology Program, with a focus on the effects of stress on higher order cognitive processes, prefrontal cortex function, and emotion regulation in at-risk children and adolescents. Michelle then completed her internship and postdoctoral fellowship at Ann & Robert H. Lurie Children's Hospital in Chicago, before returning to Nashville.

Quincy Rhoads earned his bachelor's and master's degrees in English from Austin Peay State University. He is an adjunct instructor in the university's Languages and Literature Department, and he is a contributing editor for the online magazine *Entropy*. His fiction and book reviews have appeared in magazines such as *Zone 3*, *THE2NDHAND*, *Rain Taxi*, and *Metazen*.

Max Robinson is a Vanderbilt Ph.D. student in chemical and biomolecular engineering under the direction of Professor Chair G. Kane Jennings. His research focuses on the incorporation of the naturally abundant photosynthetic protein Photosystem I (PSI) within a variety of novel device architectures

"The teachers were energetic, dedicated, and interesting, fostering an environment that promoted intellectual and personal growth."



for solar energy conversion. He received his bachelor's degree in chemical engineering from Trinity University in 2013.

Ben Shapiro is a second-year doctoral student in the learning sciences in the Department of Teaching and Learning in Peabody College at Vanderbilt University. He previously studied architecture and currently studies how the design of space influences learning in schools and academic workplaces. His research includes the study of visitor engagement and practices of visitor curation in gallery spaces at the Country Music Hall of Fame and Museum. He is co-founder of Design for America Vanderbilt. Ben received his B.A. in architectural study from Middlebury College and his M.Ed. from Vanderbilt.

Johanna Strömberg is a Ph.D. student in mathematics at Vanderbilt studying graph theory. Her research focuses on minimum genus embedding of graphs, that is, finding the "simplest" surface a graph can be drawn on without any edges crossing. She is also interested in number theory (in particular cryptography), knot theory, and ways to integrate technology in the classroom. Johanna received her BSc (Honours) in mathematics from Royal Holloway, University of London, in 2014, and in her spare time she enjoys coding and baking.

Matt Velasco graduated from Stanford University in 2008 with a B.A. in anthropological sciences and is currently a Ph.D. candidate in the Department of Anthropology at Vanderbilt. He specializes in the bioarchaeological analysis of skeletal and mummified human remains from highland Peru. In addition to multiple years

of research in Peru, he has participated in archaeological investigations at the Paleolithic site of Chez-Pinaud (Jonzac) in southwest France. His professional research interests include community health before and after the expansion of the Inka Empire, and the social and political dimensions of mortuary ritual. Matt also maintains an intellectual interest in forensic science and its archaeological applications, and he is an avid fan of the television show *Forensic Files*.

Greg Walker, associate professor of mechanical engineering, holds several appointments at Vanderbilt, including in the Interdisciplinary Materials Science program, the Thermal Engineering Lab, the Advanced Computing Center for Research and Education, and the Vanderbilt Institute of Nanoscale Science and Engineering. His research interests include the modeling and simulation of nonequilibrium, coupled energy transport in electronic and energy conversion materials. To learn more, visit engineering.vanderbilt.edu/mefaculty-staff/greg-walker.php

Clayton Wandishin is a graduate student in the quantitative and chemical biology program with a degree in chemistry and psychology from the University of Miami. His current research is focused on the structure and function of biomimetic compounds and their roles as possible therapeutics. In his free time he is an avid outdoorsman who enjoys hiking, fishing, and backpacking.

Amanda A. Winburn has degrees from Emory University (B.A.) and Vanderbilt University (M.A.), and she is currently a Ph.D. student at Vanderbilt. Winburn specializes in applying chemical analyses to human skeletal remains from archaeological sites to reconstruct ancient diet and migration patterns. Her dissertation research applies biogeochemical techniques to skeletal remains from a Classic Period Maya site in Guatemala to identify how differences in social status structured access to dietary resources and nutritional health, and how local or foreign (immigrant) status articulated with social structure and the likelihood for violence and poor health. In addition to her research in Guatemala, she has previous archaeological experience in Alaska and Belize.

Frequently Asked Questions from VSA Applicants

Where will I live? Hank Ingram House on The Ingram Commons at Vanderbilt was opened in 2008. It has many fine amenities and a prime campus location. It is fully air-conditioned and has comfortable rooms and resident lounges on each floor.

Will I have a roommate? Yes. All Hank Ingram rooms are double rooms. Two students (same gender) will be assigned to each room. Each floor of Hank Ingram House has four single-gender communal bathrooms.

May I choose my own roommate? No. VSA makes roommate assignments randomly.

May I bring a car to campus? No.

May I bring a cell phone, iPod, or other electronic device? Yes. However, we do have restrictions on the use of these devices, which we will ask you to abide by. The policy for use of electronics will be outlined in your student handbook.

Do I need a computer? No. Students will have access to three computer labs, which will be accessible at certain hours of each weekday. Also, there are many public-use computers around campus. Some students do find that a computer is beneficial, but they are not required.

Will I do my own laundry? Yes. Students attending Sessions II or III will do their own laundry. Laundry facilities are available in the residence hall. You should pack laundry supplies such as detergent, fabric softener, etc. If you've never done laundry, you might want to ask your parents for a crash course before you arrive at VSA!

How should I select my course? We recommend that you choose your course based on what interests you. We encourage you to rank three to four (or more!) courses, but be sure that any course you rank on your application is something you'd be willing to take and pay for. Once you are placed in a course you ranked, your deposit will be non-refundable. *Apply early to have the best chance at your first choice!*

Why do I take only one course? We believe that, in order to develop facility in specific content areas, it is important for gifted students to be immersed in core content. Therefore, each VSA course is designed to be an accelerated, in-depth look at its respective content area.

Will I receive a grade or credit for my course?

No. VSA does not give grades or award credit. We want you to stretch your intellectual capacity without fear of failure. Your instructor will evaluate your progress, and you will receive a course evaluation report from your instructor after VSA. The report will detail your progress on a variety of factors and aims to give you a broad picture of your academic growth in the course.

What are proctors and what do they do?

Proctors are residential counselors. They are specially trained undergraduate students who will live in the residence hall with VSA students and will organize the residential recreational and social activities. Each student will be assigned to a proctor group. Your proctor is also available to answer any questions you have and to help you make the best of your VSA experience.

Will attending VSA help me get into Vanderbilt? No. However, attending VSA will give you an inside look at Vanderbilt and will provide opportunities for you to learn more about the admissions process than you typically would get from a regular admissions visit.



“I was really nervous before coming but once I got here it was fine and it really helped to show me how I should get out of my comfort zone.”

Frequently Asked Questions from Parents

When are applications due? While most classes fill within the priority application window (January 6–16), we will continue to accept applications throughout the spring until all classes are filled.

What is the “Priority Application Window”? How does it affect my student’s application?

All applications received during the Priority Application Window (January 6–16) will be placed in a priority pool regardless of the particular date submitted. This means that any complete and qualifying application submitted during the application window has the same opportunity for placement. At the close of this window, all applications received during the window will be randomly assigned a number determining their placement in the review queue. Applications received after the application window will be time and date stamped upon arrival and reviewed in order. What does this mean for your student? Because our courses fill so quickly, we highly recommend that you submit your student’s application during our application window for the best chance at placement in his or her top-ranked course.

Why are there different tuition payment dates for Sessions II and II and for Session I?

Session I is geared to 7th graders who have just participated in a talent search, such as Duke TIP. Since many of them do not learn their ACT or SAT score until mid-to-late March, Session I applicants have slightly later deadlines.

Do I get my deposit back? Deposits are refundable ONLY if a student is NOT placed in a class. Once we place a student in a class, deposits are non-refundable. Therefore, we highly recommend that students rank only those classes they are willing to take—and *pay for*.

Why does VSA use ACT/SAT/PSAT scores to determine eligibility? VSA specifically designs courses for gifted learners. Our instructors teach their courses at an accelerated pace and at a level of depth which research suggests works particularly well with gifted students. We use ACT/SAT scores as a measure in determining a student’s ability to succeed at this pace.

My child has not taken the ACT/SAT. Is there an alternative qualifying method?

Yes. In addition to ACT/SAT scores, we also offer a portfolio assessment option. Details of the portfolio option are outlined on our website. Please visit pty.vanderbilt.edu/students/vsa/admissions/qualification to learn more.

Who will supervise VSA students in the residence hall? The VSA residential staff consists of a residential director and assistant residential director who are members of the year-round PTY professional staff, along with two additional assistant residential directors, office staff, and a team of 15 proctors who will live on the residential floors.

Will I get to meet my child’s instructor? Yes, if you wish. Classroom open houses or optional parent/teacher conferences will be available to parents on check-out days

May I visit my child during VSA? Other than check-in and check-out days, we respectfully request that parents remain off campus while VSA is in session. However, during sessions that include weekends, we will allow families to check students out on Sunday mornings. See your child’s welcome packet for details.

Are all meals included? Yes.

Can VSA accommodate dietary restrictions? Usually, with adequate prior notice.

Does my child need spending money? Yes. We recommend about \$30 per week for incidentals and occasional optional outings for ice cream or souvenirs from the VU bookstore.

I am applying for financial aid. Should I send the aid application along with my child’s application for admission? Yes. Please send them together. We will make admission decisions independently of financial aid decisions, but for the sake of simplicity, we recommend that you send all materials at once.

How does VSA determine financial aid eligibility? Eligibility for financial aid is strictly need-based. Families must submit their most recent federal tax return or letter of free lunch eligibility along with the completed financial aid application in order to demonstrate need. Award amount will be included with student’s admission notice.

Does VSA award full scholarships? No. All financial aid awards are partial.



Application Instructions and Timelines

SESSIONS II AND III

- **Beginning January 6, 2015**
Applications for admission and financial aid may be submitted.
- **April 17, 2015**
Final tuition payment due for all admitted students. Failure to submit tuition by this date could result in forfeiture of enrollment at VSA. This is also the last day for full refund (less deposit).
- **May 8, 2015**
Last day to withdraw with partial refund (less deposit).

SESSION I

- **Beginning January 6, 2015**
Applications for admission and financial aid may be submitted.
- **May 8, 2015**
Final tuition payment due for all admitted students. Failure to submit tuition by this date could result in forfeiture of enrollment at VSA. This is also the last day for full refund (less deposit).
- **May 22, 2015**
Last day to withdraw with partial refund (less deposit).

ADMISSION NOTIFICATION

VSA will send admissions notifications via email on a rolling basis as applications are reviewed.

Students will receive an acknowledgement email upon initial receipt of their applications. In most cases, students can expect an admissions notification within three weeks of their initial “application received” email. We will send email communication to all email addresses included on application.

IMPORTANT NOTICE:

Applications will be reviewed in the order received with the exception of the application window applicants who are randomly assigned. Submit your application early in order to have the best chance for receiving your first-choice course. Applications received prior to January 6, 2015, will be dated January 6 and considered within the priority application window, regardless of receipt date.

APPLY ONLINE:

Visit pty.vanderbilt.edu/vsa to access our online application. The online application will be available beginning January 6. The priority application window is noon January 6–noon January 16.

APPLICATION CHECKLIST

Incomplete applications will not be reviewed. Make sure to include all required materials:

- Admission application, completed and signed
- Copy of ACT, SAT, or PSAT scores
(First-time students only)
- Application Fee of \$40
(Non-refundable, required for ALL applicants)
- Tuition Deposit: \$300
(As a separate check or money order from application fee)

Financial Aid applicants are not required to submit a tuition deposit.
- Essays, completed and signed
- Financial Aid Form and supporting documents
(if applicable)

Supplemental Materials

(If applicable; not all courses require supplemental materials. See course listing to determine if you need to send supplemental materials)

- Transcripts
- Two Letters of Recommendation
(Submitted electronically per online application instructions or in sealed envelopes that your recommender has signed across the seal.)





COURSE PLACEMENT

Rank your course choices in order of preference, with 1 indicating your first choice. You may rank as many choices as interest you. We will make every effort to place you in your first choice. However, courses fill very quickly, and we will place you into your highest-ranked course based on seat availability at the time we review your application. **Thus, rank only courses you are willing to take and pay for.** Once you are placed in a course you ranked, your deposit is non-refundable.

Following the priority application window, all courses will be filled first-come, first-served, based on eligibility. However, in some instances, VSA may make adjustments to balance class enrollments. We strongly encourage students to submit applications as early as possible to have the best chance of placement in higher-ranked class choices.

Waiting lists will be maintained for applicants for whom all course choices are full; however, there is no guarantee that spots will open in a class. Deposit checks will be held, but not cashed, when students are placed on a waiting list. Deposit checks will be cashed upon the student's placement in a class or returned if the student does not gain admission to the program.

REFUND POLICY

The \$40 application fee will not be refunded for any reason. The \$300 tuition deposit will not be refunded for any reason after a student is admitted to a ranked course choice.

A student who withdraws from the program will receive a tuition refund (minus the tuition deposit and application fee) if VSA is notified before April 17, 2015, for Sessions II and III or May 8, 2015, for Session I. Students who withdraw between May 8, and May 22, 2015, may be eligible for a 50 percent refund (minus the deposit and application fee). After May 22, 2015, requests for refunds are not granted.

PAYMENT

All applicants must submit a non-refundable application fee of \$40, payable by check or money order to Vanderbilt University-PTY. Submit a separate check/money order for the tuition deposit with applications. Deposits will be refunded only if the student is not admitted to the program.

Tuition balance may be paid by check, money order, or credit card. Credit card payments are subject to an administrative processing fee. Payroll deduction is available to Vanderbilt employees. To apply for payroll deduction, email pty.peabody@vanderbilt.edu.

NOTE: Please make all checks/money orders payable to Vanderbilt University-PTY.

FINANCIAL AID

Limited need-based financial aid is available. Families applying for financial aid must include copies of their most recent federal income tax return (1040, 1040A, 1040EZ) including any schedules, attachments, and W-2 forms, or a copy of a letter of free lunch eligibility for the student. Financial aid decisions are made independently of admissions decisions. Financial aid awards are for partial tuition and are strictly need-based.

REMINDER: Submit financial aid form with student's admission application.

Vanderbilt Summer Academy

A D M I S S I O N A P P L I C A T I O N

Please type or print in blue or black ink. You may photocopy this application for family or friends.

Applicant's name _____
Last
First
Preferred name

Date of birth ____/____/____ **Gender** Male Female **Current grade** (School year 2014/2015) 7th 8th 9th 10th 11th
Month
Day
Year

Race/Ethnicity (optional) African American/Black Asian/Pacific Islander Caucasian/White
 Hispanic Native American Multiracial Other

Mailing address _____
Number and street, box, or route
City, State, ZIP

Home telephone () _____ **Applicant email** _____

Applicant cellphone () _____

Are you applying for financial aid? Yes No

If yes, enclose a completed financial aid application. Financial aid applicants are not required to submit a tuition deposit.

C O N T A C T I N F O R M A T I O N

Primary Contact: _____
First
Last
Relationship to Student

() _____
Email Address
Preferred Phone #

Secondary Contact: _____
First
Last
Relationship to Student

() _____
Email Address
Preferred Phone #

We will send most VSA correspondence via email, including admission notices, to all email addresses you provide (student, primary and/or secondary contacts). Please ensure that email addresses are accurate and legible.

A D D I T I O N A L I N F O R M A T I O N

T-shirt size (Adult sizes) Small Medium Large Extra large

How did you hear about Vanderbilt Summer Academy?

- I am a returning student Catalog Mailing Teacher School Counselor Web Search Postcard Friend
 E-Newsletter Vanderbilt Publication Duke TIP Social Media Other: _____

2015 APPLICATIONS ACCEPTED BEGINNING JANUARY 6, 2015
PRIORITY APPLICATION WINDOW: NOON JANUARY 6–NOON JANUARY 16
APPLICATIONS ACCEPTED UNTIL ALL COURSES ARE FILLED.
Session I: June 14–19, 2015 • Session II: June 21–July 3, 2015 • Session III: July 12–31, 2015

Send completed application to:
Vanderbilt Summer Academy Admissions
PMB 0506 • 230 Appleton Place • Nashville, TN 37203-5721
(615) 322-8261 • pty.vanderbilt.edu

OFFICE USE ONLY:

Date rec'd:
App ck #:
Dep ck #:
App #:

COURSE INFORMATION

Please rank your course choices in order of preference. You may rank as many choices as interest you. We will place you in your highest ranked classes based on available openings. Rank only those classes that you are willing to take and **pay for**. Deposits are non-refundable once you are placed in a class you ranked.

Session 1: June 14–19, 2015

(Rising 8th graders)

___ Intro to Nanotechnology

___ Intro to Game Theory

___ Crime and Punishment

___ Philosophy

___ The Spatial Age

___ Magical Realism

___ Math and Music

___ Science of Mummies

___ Volcanology

___ A Case for Change

___ Chemistry of Everything

___ Creative Writing

Session II: June 21–July 3, 2015

(Rising 9th and 10th graders)

___ The Making of MLK

___ Abstract Algebra

___ Anti-Semitism and Comic Heroes

___ Human Geography

___ Music and Cognition

___ Archaeological Chemistry

___ Magical Realism and Historical Memory

___ Game Theory

___ Microbiology and Immunology*

___ Rhetoric and Advocacy

___ Astronomy

___ Nanotechnology

Session III: July 12–31, 2015

(Rising 11th and 12th graders)

___ Medicine, Health and Society

___ Southern Religion/Culture

___ Knot Theory*

___ Psychology and Media

___ Magical Realism

___ Science of Film

___ Med School 101*

___ Astronomy: Galaxies

___ Special Topics in Math*

___ Forensics and Bioarchaeology

___ Agents of Change

___ Fantasy Writing

*These courses require additional application materials. See catalog course listings for details, or visit pty.vanderbilt.edu/vsa.

If applying for a math course, please provide the following information:

Math courses completed as of June 2015: Algebra 1 Algebra 2 Geometry Pre-Calculus Calculus Other

If applying for a science, math, or engineering course or Med School 101, please provide the following information:

High school science course(s) completed: Biology* Chemistry* Physics Other (*Required for Med School 101)

Math courses completed as of June 2015: Algebra 1 Algebra 2 Geometry Pre-Calculus Calculus Other

Documentation in the form of transcripts, grade report, or other record of current courses is required.

SCHOOL INFORMATION

School name _____

City/State _____

TESTING

Provide verification of your qualifying test scores; include photocopies of the applicable score report with this application.

PSAT Test Date _____ Grade/Age when taken _____ Math _____ Critical Reading/Verbal _____

SAT Test Date _____ Grade/Age when taken _____ Math _____ Critical Reading/Verbal _____

ACT Test Date _____ Grade/Age when taken _____ Math _____ Critical Reading/Verbal _____

Please read, sign, and date the following certification. We certify that all statements and supporting documents submitted in the application process are truthful, accurate, and complete. We also agree that the intentional submission of false or misleading statements or supporting documents constitutes cause for denial of admission or dismissal from the program.

Signature of parent or legal guardian _____

Date _____

Signature of applicant _____

Date _____

VSA is committed to principles of equal opportunity and does not discriminate on the basis of race, ethnicity, religion, sexual orientation, gender, or gender identity.

Vanderbilt Summer Academy

ESSAY 1

Student's name

In 200–300 words, please tell us why you think your first-choice course is a good fit for you.
You may use a separate sheet of paper, if needed.

Note: Please speak freely. We use these essays to learn more about you. They may be shared with VSA faculty and staff.

I hereby certify that the words and ideas above are my own.

Signature

Vanderbilt Summer Academy

ESSAY 2

Student's name _____

Please write an original response to one of the following in 200–300 words:

- Imagine you are required to spend an entire year of your life in either the past or the future. What year would you travel to and why?
 - What outrages you and why? What are you doing about it?
 - Tell us a question you think a selective college should ask. How would you answer it?
-

I hereby certify that the words and ideas above are my own.

Signature _____

Vanderbilt Summer Academy Admissions

PMB 0506 • 230 Appleton Place • Nashville, TN 37203-5721

(615) 322-8261 • pty.vanderbilt.edu

Vanderbilt Summer Academy

FINANCIAL AID APPLICATION

Please use this form to apply for financial aid and submit it with the admission application. We will use this information to determine your eligibility for financial aid and the amount of aid to be awarded. Please type or print.

- Financial aid awards are strictly need-based on a first-come, first-served basis. Apply early. Please note that we do not provide full funding.
- Applications cannot be processed until we have the completed financial aid application with all appropriate tax information, as well as the \$40 application fee.
- Submit this form, your tax information, and the application fee, along with your program application.
- Financial aid applicants are not required to submit the \$300 deposit at the time of application.

APPLICANT INFORMATION (Please type or print)

Applicant's name _____
Last
First
Middle

Mailing address _____
Number and street, box, or route
City, State, ZIP

Home telephone () _____ Cell () _____

HOUSEHOLD INFORMATION

Guardian/Mother's name _____ Occupation _____

Daytime telephone () _____ Employer name _____

Guardian/Father's name _____ Occupation _____

Daytime telephone () _____ Employer name _____

Parents' current marital status Married Divorced Separated Single Widowed

Applicant lives with (check all that apply) Mother Father Guardian Grandparent(s)

List the names of all people living in the applicant's main household, related or not, such as grandparents, other relatives, friends.
 (You may use a separate piece of paper if needed)

Name and relationship to the applicant (List the applicant first) _____ Age _____

Name and relationship to the applicant _____ Age _____

Name and relationship to the applicant _____ Age _____

Name and relationship to the applicant _____ Age _____

Name and relationship to the applicant _____ Age _____

HOUSEHOLD INCOME INFORMATION

Do you or any people living in the student's main household (grandparents, other relatives, friends, etc.) receive:

Child support payments?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, \$ _____/month
Social Security payments?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, \$ _____/month
SSI payments?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, \$ _____/month
Welfare, or any other public assistance?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, \$ _____/month
Does applicant qualify for free lunches at school?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Housing, food, or other living allowances paid to members of the clergy, military, and others?

(Do not include Military Housing Privatization housing allowance)

Yes No If yes, \$ _____/month

Financial assistance from people who are not members of the household?

(Include expenses paid on your behalf)

Yes No If yes, \$ _____/month

Untaxed workers compensation, disability, retirement, or veterans' benefits?

Yes No If yes, \$ _____/month

Any other income not listed above and not reported on your federal tax return?

Yes No

If yes, list type of benefit(s) and amount(s) below:

_____	\$ _____/month
_____	\$ _____/month
_____	\$ _____/month

ASSETS INFORMATION

Current value of cash/savings/checking	\$ _____
Current value of stocks and investment accounts	\$ _____
Current value of your business(es) or farm(s)	\$ _____
Balance of associated loan(s)	\$ _____
Current value of other real estate owned	\$ _____
Balance of associated loan(s)	\$ _____
Current value of your home (if you own)	\$ _____
Balance of associated loan(s)	\$ _____

EXPENSES

Monthly rental payment if you rent your home	\$ _____
Monthly mortgage payment if you own your home	\$ _____
Annual child support/alimony payment	\$ _____
Annual amount you pay out of pocket for family medical expenses not covered by insurance	\$ _____
Annual amount of out-of-pocket expense for tuition and fees	\$ _____
Travel expense to program	\$ _____
Number of children in college	_____

Please explain any special circumstances that we should consider when awarding financial aid.

All financial aid applications must include a signed copy of your most recent federal income tax return or free lunch letter.

Include copies of all forms and schedules listed below that were included in your tax return, including:

W-2 Forms • Form 1040, 1040A, or 1040EZ • Form 4562 • Schedule A • Schedule C and/or F • Schedule D

If you are divorced, you are required to include tax forms for only the custodial parent.

If you are completing your financial aid application before you have completed your 2014 tax return, you may send a copy of your 2013 tax return and all applicable schedules and forms. Please also attach copies of your 2014 W2 forms for all wage earners in the household. If you have not yet received a 2014 W2 form, you may substitute a copy of your 2014 year-end pay stub, if it includes 2014 year-end earnings information. If it does not, you may substitute a signed statement from your employer on company letterhead.

I certify that all statements, information, and attachments submitted with this form are truthful, accurate, and complete.

Signature of parent or legal guardian

Date

Other Summer Programs at Vanderbilt



VANDERBILT CENTER FOR SCIENCE OUTREACH (CSO)

The Vanderbilt Center for Science Outreach is dedicated to enhancing scientific and technological literacy through the establishment of unique partnerships between university scientists, K-12 educators and students, and the local and global science community. CSO offers summer programs for students, including GAS (Girls And Science) and BEST (Boys Exploring Science and Technology). To learn more about CSO, visit scienceoutreach.org.

VANDERBILT PAVE

PAVE is a six-week summer course of study designed to strengthen the academic skills of students who are planning to enter a college engineering, pre-medical, science, or technology program. In addition to strengthening your background, PAVE can help you decide if a technology-based degree is really the field for you. Participants have the opportunity to improve skills in problem solving, technical writing, computer application, and laboratory work by performing experiments in the sciences, pre-med, and engineering disciplines. To learn more about PAVE, visit pave.vanderbilt.edu.



CAMPVANDY

CampVandy is a day camp for Vanderbilt and Nashville community children between the ages of 5 and 12. Campers experience a variety of sports activities and games with emphasis on fun and participation. Weekly highlights include swimming, career guest day, and club activities. To learn more about CampVandy, visit vanderbilt.edu/CampusRecreation/youth.





SARRATT YOUTH ART INSTITUTE

The Sarratt Youth Art Institute offers opportunities for children from a variety of backgrounds to pursue their interest in art and to explore their creative abilities. SYAI offers three two-week sessions designed to give students time and experience with art forms, to allow them to be creative, and to encourage their math, reading, and science education through an arts-based curriculum. To learn more, visit vanderbilt.edu/sarratt/syai.

SPACE EXPLORATION SCIENCE CAMP, SPONSORED BY DYER OBSERVATORY

Space Exploration Science Camp offers hands-on learning adventures in astronomy and space exploration to varying levels of middle school students. Campers interact with astronomers and astronauts who are respected researchers and seasoned instructors, while building a model satellite, launching water rockets, and conducting solar observation and electromagnetic spectrum experiments. To learn more, visit the "Outreach Programs" page at dyer.vanderbilt.edu.

MORE SUMMER PROGRAMS AT VANDERBILT

vanderbilt.edu/cngr/summer_programs



“In my experience, universities can play a role in encouraging and supporting the most talented young learners. And it is important that we do so—for their well-being and for our common future.”



Dean Camilla Benbow, an internationally recognized researcher of gifted and talented youth, co-director of the Study of Mathematically Precocious Youth, and Patricia and Rodes Hart Dean of Education and Human Development at Peabody College, founded Vanderbilt Programs for Talented Youth (PTY) in 2000 as a summer residential academic program on the campus of Vanderbilt University.

Vanderbilt Programs for Talented Youth would like to thank the following individuals and programs of the Vanderbilt community for their support.

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*Tamra Stambaugh, Ph.D.,
Executive Director, Programs for
Talented Youth, and Research Assistant
Professor of Special Education*

Vanderbilt University's Programs for Talented Youth Developing Talent in Gifted Students and Those Who Work with Them

Current and developing initiatives include:

For Students Who Will Be Entering Grades 8–12:

- **VSA–Vanderbilt Summer Academy** This residential program offers a full catalog of topics taught by Vanderbilt faculty and a roster of social and cultural activities.

For Students Currently in Grades 7–10:

- **WAVU–Weekend Academy at Vanderbilt University** This fast-paced, residential program lasts one weekend and is taught by Vanderbilt faculty. WAVU is offered in fall and spring semesters.

For Students Currently in Grades K–6:

- **SAVY–Saturday Academy at Vanderbilt for the Young** These accelerated weekend courses meet for six consecutive Saturday morning in the fall and spring semesters.
- **SAVY–Summer Academy at Vanderbilt for the Young** These accelerated courses meet for one- or two-week sessions during the summer.

For Educators and Parents:

- **GEI–Gifted Education Institute** GEI offers professional development opportunities to educators and parents of high-ability learners throughout the summer. Access summer workshops and courses on our website: pty.vanderbilt.edu/educators/gifted-education-institute
- **Parent education groups and lectures.**
- **Professional development workshops for educators each fall, spring, and summer, including the Tennessee Employment Standard.**
- **Education/assessment and consultation.**
- **Research grants to support talent development.**

If you are interested in learning more about new and growing programs, please contact us through our website at pty.vanderbilt.edu or email pty.peabody@vanderbilt.edu.

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