

Profile

Personal information

Name Tomago, Gogo
Birthdate 08/10/2005

Contact details

Email, Phone

Permanent address 83 Latitude Ln Mount Pleasant, SC, 29464-2685, USA
Alternate address 401 Railroad Ave Hartsville, SC, 29550-4326, USA (08/05/2019 - 06/17/2023)

Demographics

Gender Identity Female
Sex Female
Pronouns She/Her
Military status None
Hispanic or Latino/a/x No
Race **Asian** (China, Japan)

Language

English First Language, Speak, Read, Write, Spoken at Home
Mandarin Speak, Read, Write

Geography and nationality

Citizenship status U.S. citizen or U.S. national
Birthplace Raleigh, North Carolina, United States of America 17 years US

Common App fee waiver

Fee waiver requested No

PREVIEW

Family

Household

Parents	Married
Home	Both Parents

Parent 1

Mother

Name	Wei Tomago (Shin)
Occupation	Engineer, Employed, Boeing
Education	Graduate school Bachelors (2000), Tsinghua University, China Masters (2003), Duke University, 2138 Campus Drive, Durham, NC, USA, CEEB: 5156

Parent 2

Father

Name	Haruto Tomago
Occupation	Engineer, Employed, Boeing
Education	Graduate school Bachelors (1998), University of Tokyo, 7-3-1- Hongo, Bunkyo-Ku, Tokyo, Tokyo, JPN, CEEB: 4783 Masters (2002), Duke University, 2138 Campus Drive, Durham, NC, USA, CEEB: 5156

Siblings

Kenji Tomago, Age 21
Haruto Tomago, Age 19
Sakura Tomago, Age 16

Education

Current or most recent secondary school

Governor School Science And Math, 401 Railroad Ave, Hartsville, SC, USA, Public, CEEB: 410997 (08/2021 - 06/2023)

Boarding school	Yes: Living at school
Other	Lucy Garrett Beckham High School, 1560 Mathis Ferry Road, Mt. Pleasant, SC, USA, Public, CEEB: 410068 (08/2019 - 06/2021)
Progression	No change in progression
Graduation Date	06/2023

Colleges & universities

School	Coker College, 300 E College Ave, Hartsville, SC, USA, CEEB: 5112 Dual enrollment with high school (08/2021 - 06/2023)
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Grades

Rank	na / 124
GPA	5.3 / 5, Weighted

Current or most recent year courses

First semester

CHEM - Computational Chemistry (Post-AP) - (ADV)

MATH - Multivariable Calculus (Post AP) - (ADV)

ENG - Reading & Writing Fiction, Drama, & Poetry (Dual Enrollment) - (DUAL)

HIST - Ethics, Beauty and the Environment - (REG)

CHEM - Molecular Spectroscopy (Post AP) - (ADV)

ART - Advanced Ceramics - (ADV)

Second semester

CHEM - Computational Chemistry (Post-AP) - (ADV)

MATH - Multivariable Calculus (Post AP) - (ADV)

HIST - Ethics, Beauty and the Environment - (REG)

ENG - Writing in STEM (Dual Enrollment) - (DUAL)

COMPSCI - Introduction to Artificial Intelligence - (ADV)

Future plans

Scientific researcher, Doctorate

PREVIEW

Testing

There are no test scores to report.

PREVIEW

Activities

Internship

10, 11
School
35 hr/wk, 12 wk/yr
Continue

Intern, Dr. Heller Lab, Duke Dept. of MSME

Formulating a novel fabrication method for a Pt catalyst for carbon dry reformation, analyzing LSPR excitation of hydrogen generation

Internship

11, 12
School, Break
27 hr/wk, 14 wk/yr
Continue

Intern, Pasquinelli Research Laboratory

Analyzing the thermal degradation of medical textile P4HB through molecular dynamics simulations, composing research paper *see add'l info.

Other Club/Activity

11, 12
School
3 hr/wk, 36 wk/yr
Continue

Founder and President, Future Chemists of America

Directing a year long peer chemistry tutoring program, hosting the Future Chemists of America Scholastic Tournament for over 70 eastern NC students

Dance

9, 10, 11, 12
Year
5 hr/wk, 42 wk/yr
Continue

Vice President, ('17) Treasurer ('16-'17) Dancer ('16-'17), Ruby Slippers Chinese Dance Club

Choreographing Chinese dances and instructing dance group, managing club finances and transactions, organized club fundraiser that raised over \$3000

Student Govt./Politics

9, 10, 11, 12
School
4 hr/wk, 35 wk/yr
Continue

Class Advisory '14-'17, Executive Council '17-'18, High School

Fundraised \$5,000 individually and \$350,000 collectively for the beneficiaries of Enloe's Charity Ball, planning and organizing school events.

Music: Instrumental

9, 10, 11, 12
Year
9 hr/wk, 49 wk/yr
Continue

Piano player, Piano

Studying and performing a variety of piano literature at master classes, retirement homes, etc., attaining honors in international competitions

Academic

11, 12
School
2 hr/wk, 30 wk/yr
Continue

Tutor, Future Chemists of America

Instructing and clarifying Honors and AP Chemistry coursework, guiding peers individually through course work

Academic

10, 11
School
3 hr/wk, 30 wk/yr
Continue

Member, Science Olympiad Team

Competing in Materials Science, Chemistry Lab, Codebusters, and Forensics events, fostering a collaborative environment among event teams

Internship

10, 11, 12
School
2 hr/wk, 20 wk/yr
Continue

Administrative Intern, Haven House

Working closely with clients and families during Second Round Program orientation, handling financial documents, and coordinating office information

Academic

11
Break
5.5 hr/wk, 14 wk/yr
Continue

Natural Science student, SC Governor's School East

Studying chemistry, physics, and biology with a focus on the Flint Water Crisis, discussing and debating philosophical, moral and ethical inquiries

Writing

Personal essay

Some students have a background, identity, interest, or talent that is so meaningful they believe their application would be incomplete without it. If this sounds like you, then please share your story.

As I enter the double doors, the smell of freshly rolled biscuits hits me almost instantly. I trace the fan blades as they swing above me, emitting a low, repetitive hum resembling a faint melody. After bringing our usual order, the “Tailgate Special,” to the table, my father begins discussing the recent performance of Apple stock with my mother, myself, and my older eleven year old sister. Bojangle’s, a Southern establishment well known for its fried chicken and reliable fast food, is my family’s Friday night restaurant, often accompanied by trips to Baxter-Patrick, the nearby library. With one hand on my breaded chicken and another on Nancy Drew: Mystery of Crocodile Island, I can barely sit still as the thriller unfolds. They’re imprisoned! Reptiles! Not the enemy’s boat! As I delve into the narrative with a sip of sweet tea, I feel at home.

“Five, six, seven, eight!” As I shout the counts, nineteen dancers grab and begin to spin the tassels attached to their swords while walking heel-to-toe to the next formation of the classical Chinese sword dance. A glance at my notebook reveals a collection of worn pages covered with meticulously planned formations, counts, and movements. Through sharing videos of my performances with my relatives or discovering and choreographing the nuances of certain regional dances and their reflection on the region’s distinct culture, I deepen my relationship with my parents, heritage, and community. When I step on stage, the hours I’ve spent choreographing, creating poses, teaching, and polishing are all worth it, and the stage becomes my home.

Set temperature. Calibrate. Integrate. Analyze. Set temperature. Calibrate. Integrate. Analyze. This pulse mimics the beating of my heart, a subtle rhythm that persists each day I come into the lab. Whether I am working under the fume hood with platinum nanoparticles, manipulating raw integration data, or spraying a thin platinum film over pieces of copper, it is in Lab 304 in Hudson Hall that I first feel the distinct sensation, and I’m home. After several weeks attempting to synthesize platinum nanoparticles with a diameter between 10 and 16 nm, I finally achieve nanoparticles with a diameter of 14.6 nm after carefully monitoring the sulfuric acid bath. That unmistakable tingling sensation dances up my arm as I scribble into my notebook: I am overcome with a feeling of unbridled joy.

Styled in a t-shirt, shorts, and a worn, dark green lanyard, I sprint across the quad from the elective ‘Speaking Arabic through the Rassias Method’ to attend ‘Knitting Nirvana’. This afternoon is just one of many at Governor’s School East, where I have been transformed from a high school student into a philosopher, thinker, and avid learner. While I attend GS at Meredith College for Natural Science, the lessons learned and experiences gained extend far beyond physics concepts, serial dilutions, and toxicity. I learn to trust myself to have difficult yet necessary conversations about the political and economic climate. Governor’s School breeds a culture of inclusivity and multidimensionality, and I am transformed from “girl who is hardworking” or “science girl” to someone who indulges in the sciences, debates about psychology and the economy, and loves to swing and salsa dance. As I form a slip knot and cast on, I’m at home.

My home is a dynamic and eclectic entity. Although I’ve lived in the same house in Mount

Pleasant, South Carolina for 10 years, I have found and carved homes and communities that are filled with and enriched by tradition, artists, researchers, and intellectuals. While I may not always live within a 5 mile radius of a Bojangle's or in close proximity to Lab 304, learning to become a more perceptive daughter and sister, to share the beauty of my heritage, and to take risks and redefine scientific and personal expectations will continue to impact my sense of home.

Additional information

Ruby Slippers Chinese Dance Club

Vice President, Instructor ('17-'18)

- Choreographing chinese dances, instruct dance group
- Coordinating all components of performances (lighting, music, costumes)

Treasurer ('16-'17)

- Handled club finances and transactions and kept accurate records (reimbursement, teacher compensation, membership fees)
- Organized club fundraiser at Dragon Boat Festival that raised over \$3,000

Member/Performer ('10-present)

- Performing frequently at major cultural celebrations (UNC-Chapel Hill/Duke Cultural Festivals, Chinese American Friendship Association Spring Festival Gala, Raleigh International Festival, Dragon Boat Festival, as opening acts for famous Chinese performers, etc.) to share and cultivate awareness of the Chinese culture

Student Council ('14-'18)

- Individually raising over \$5,000 to benefit Interfaith Food Shuttle, Learning Together, and Urban Ministries, the beneficiaries of Enloe's annual Charity Ball, contributing to a collective effort of \$350,000 to the aforementioned nonprofit organizations through outreach to local businesses, neighbors, corporations, etc.
- Planning Homecoming, Prom, Spirit Week, Teacher Appreciation Week, Freshman Orientation, and various other school events.

Founder and Counselor, Science and Math Camp of SC (SAMSC)

- Planned and hosted a 2-week summer camp for 20 rising 3rd-5th graders, taught advanced

science and math concepts through hands-on experiments and activities

National Honors Society ('16-'18)

-Serving as a Chemistry TA, volunteering at Teen Court, crisis relief centers, and various community events

As a junior and senior, I have been eager to take advantage of the wide range of courses available at GSSM within the sciences. To allow for room in my schedule for the aforementioned courses, I chose not to take an additional language after sophomore year because my language requirements had already been completed. However, I do hope to continue my pursuit of languages in the future.

Education progression

Details

Education progression details No change in progression

Required explanation

Secondary school change

I applied and was accepted to The The South Carolina Governor's School for Science & Mathematics (GSSM), a selective enrollment residential program serving juniors and seniors from throughout the state of South Carolina.

Courses & Grades

Course levels legend

REG - Regular/standard

ACC - Accelerated

ADV - Advanced

AP - Advanced placement

Cambridge AICE AS A-Level - AS/A-level/International A-level, Cambridge AICE

C PREP - College prep

DUAL - Dual enrollment

ENRCHD - Enriched

Cambridge IGCSE - GCSE, IGCSE

GFTED - Gifted

HGH HNR - High honors

HON - Honors

INTSV - Intensive

IB - International Baccalaureate

PRE IB - Pre-international Baccalaureate

RGNTS - Regents

N/A - Not applicable

Non-numeric/letter grade legend

I - Incomplete

NG - No grade

F - Fail (Pass/Fail)

P - Pass (Pass/Fail)

S - Satisfactory

U - Unsatisfactory

W - Withdrawn

WF - Withdrawn (Failed)

ME - Medical excuse

Grade 9

Lucy Garrett Beckham High School, 1560 Mathis Ferry Road, Mt. Pleasant, SC, USA, CEEB: 410068

School Year 2019-20

Schedule Yearly

Subject	Course Name	Level	Grades (A-F)	Credits
			Final	Final
TRIG	Honors Trigonometry	HON	A+	1
ENG	Honors English 9	HON	A+	1
HIST	Honors World History	HON	A	1
LANG	Spanish II	REG	A+	1
ART	Intro to 3D Art	REG	A+	1
BIOL	Honors Biology	HON	A	1
PE/HLTH	Physical Education & Health	REG	A+	1

Grade 10

Lucy Garrett Beckham High School, 1560 Mathis Ferry Road, Mt. Pleasant, SC, USA, CEEB: 410068

School Year 2020-21

Schedule Yearly

Subject	Course Name	Level	Grades (A-F)	Credits
			Final	Final
CHEM	AP Chemistry	AP	A+	1
PRE-CALC	Honors Precalculus	AP	A+	1
COMPSCI	AP Computer Science	AP	A+	1
ENG	AP Language and Culture	AP	A+	1
LANG	Spanish III	REG	A-	1
HIST	AP US Government	AP	A+	1

Grade 11

Governor School Science And Math, 401 Railroad Ave, Hartsville, SC, USA, CEEB: 410997

School Year 2021-22
Schedule Semesters

Subject	Course Name	Level	Grades (A-F)			Credits		
			S1	S2	Final	S1	S2	Final
CALC	AP Calculus	AP			A			1
PHYS	AP Physics	AP			A-			1
HIST	AP US History	AP			A			1
ENG	College English 111	DUAL	A			0.5		
ENG	College English 112	DUAL		A			0.5	
BIOL	Advanced Genetics	ADV	A-			0.5		
OTH/ELE	Engineering: Electronics	ADV		A			0.5	
OTH/ELE	Advanced Research & Inquiry Communication	ADV			A			1
CHEM	Research in Computational Drug Design	ADV		A			0.5	

Grade 12

No courses reported.

Other courses

**Governor School Science And Math, 401 Railroad Ave, Hartsville, SC, USA, CEEB:
410997**

School Year 2021-22

Schedule Other, January Interim

Subject	Course Name	Level	Grades (A-F)	Credits
			Final	Final
OTH/ELE	Equine Science and Horsemanship	N/A	NG	1

Ford Sand Supplemental Essays

Short Answers

Name your favorite books, authors, films, and/or artists. (50 word limit)

Books: *When to Rob a Bank*, *What If?*, *Outliers*, *Me Talk Pretty One Day*, *The Glass Castle*, *The Bell Jar*, *The Great Gatsby*

Authors: David Sedaris, Stephen J. Dubner

Films: *Forrest Gump*, *The Help*, *The Martian*, *Rear Window*

Artists: Glass Animals, Ed Sheeran, Lorde, Halsey

What newspapers, magazines, and/or websites do you enjoy? (50 word limit)

New York Times

Economist

Freakonomics (blog)

Humans of New York - Allows me to minimize my initial perceptions and judgements when meeting new people

What-if.xkcd.com - Closure for many of the questions I've had since middle school (and more!)

Scientific American

TED

The Onion - Irony with a hint of reality

What is the most significant challenge that society faces today? (50 word limit.)

#BlackLivesMatter. #PrayForIstanbul. We may consider retweeting videos or sharing articles effective ways to address dire social and political issues. But instead of serving as a vehicle for political participation, social media can perpetuate political complacency. Instead, we must encourage action, difficult and honest conversations, and exposure to opposing ideologies.

(49/50)

How did you spend your last two summers? (50 word limit.)

2017: Exploring the nature of my existence at Governor's School East (Natural Science); Research intern at SC State's College of Textiles studying the thermal degradation of P4HB.

2016: Research intern at Duke University studying catalyst fabrication; Composing research reports; Hiking, appreciating wildlife (and getting lost!) at Yellowstone National Park

(49/50)

What were your favorite events (e.g., performances, exhibits, competitions, conferences etc.) in recent years? (50 word limit.)

International Science and Engineering Fair in Los Angeles; Performance at Carnegie Hall; Reimagined Concert from Instrumental Music students at GSE; Charity Ball; "RACE: Are We So Different?" (Exhibit at South Carolina Museum of Natural Science)

What historical moment or event do you wish you could have witnessed? (50 word limit.)

At a 1936 rally, August Landmesser refused to raise his arm in the Nazi salute in Hitler's presence. A former loyal Nazi himself, Landmesser's act of noncompliance stands as a powerful example of civil disobedience for one's loved one, calling into question the permanence and limits of political affiliation.

What five words best describe you?

Curious, vibrant, dynamic, empathetic dogophile

Name one thing you are looking forward to experiencing at Ford Sand. (50 word limit)

Performing research with Professor Sweeney, a pioneer of environmental economics, in the SIEPR would provide an invaluable opportunity to combine my passions for economics and environmental sustainability. I would gain a deeper understanding of economic trade-offs and marginal analyses that impact the environment, other natural processes, and my future research.

Imagine you had an extra hour in the day — how would you spend that time? (50 word limit).

With two hands firmly grasping the handlebars, I maneuver out of my suburb and weave through traffic, while "In Praise of Incrementalism", a Freakonomics episode, streams in my ears. Whether while listening to podcasts or audiobooks, taking time to explore the greenways and side roads of my hometown is therapeutic.

Essays

Ford Sand students possess an intellectual vitality. Reflect on an idea or experience that has been important to your intellectual development.

I suffered from paralysis by analysis. But not in the typical sense.

Growing up, I was plagued by incessant stage fright. After hours of diligent practice and memorization, I would overthink the notes of my pieces during performances and my hands, which operated like oiled machinery during practices, ground to a sudden halt.

Even with careful attention to precise articulation and definitive dynamic changes, it took several years for me to realize that the beauty of music comes from its openness to interpretation. While studying Mendelssohn's Andante and Rondo Capriccioso, I imagined the light-footed dancing and the thunderous instrumentation of the early Romantic period. The polyphonic melodies of Bach's Prelude and Fugue mimicked the balanced trot of a chestnut horse. This discovery transformed my fingers from machinery to paint brushes, prepared to present their own art form.

It is at this intersection between imagination and cognition that I am able to develop an art that is uniquely mine, one that adds to my sense of purpose. Pieces I once perceived as finite and static were in fact subject to an innumerable array of visualizations, stylistic tones, and articulations, an idea that can be applied to virtually any notion. This discovery that little is truly certain or finite prompts me to read strange novels, engage in debates in pursuit of exploration rather than victory, and delve deeper into the validity of the most recent “buzzing” studies.

I’ve learned firsthand that the worst form of action is inaction: truth is discovered only through exploration.

Virtually all of Ford Sand's undergraduates live on campus. Write a note to your future roommate that reveals something about you or that will help your roommate -- and us -- know you better.

If you’ve found this letter in the room, I’m sure you’ve noticed my bright orange Nike Free Runs in the corner, the array of SC basketball tickets on my corkboard, and the large black speaker by my bed. Here’s why.

1. I like to move it, move it. Much like the headdress-adorned, eccentric lemur King Julien, I understand that a stressful project can be quickly lightened with a ballet combination and that jazz squares can eradicate the need for coffee or caffeine. If you can’t find me in the dorm or at class, I likely will have laced up my worn, neon orange Nike Free Runs for a Zumba class at Arrillaga or a jog around the loop.
2. As a proud South Carolinian, I am, of course, a partisan in the Clemson-SC basketball rivalry, cheering for the latter. As the board gets overloaded with to-do lists, meeting notes, and exciting formulas or challenging physics problems throughout the year, the tickets are a reminder of home.
3. I have misophonia for the noises of eating and chewing, so I hope you won’t be offended if I keep some music on while we snack at midnight while preparing for the following day’s lab work or seminars.
4. I also have to admit I’m a bit of a fangirl of journalist Steven Dubner—books, blogs, podcasts—so I may have our speaker blasting archived podcast episodes at random times throughout the day.

Hope that you’re as excited as I am for the next four years.

Can’t wait,

Gogo

What matters to you, and why?

More than 4,000 people in Charleston County are homeless, and 2,736 of those are students—many of whom attend my old school, Lucy Garrett.

In the months of October, November, and December of the past three years, my afternoons and weekends have been spent with my phone in one hand and contact numbers in the other. As I speak with neighbors, family friends, local businesses, and large corporations, I introduce the mission of Charleston County Charity Ball. Charity Ball, an annual event hosted by my old school's Student Council for a different local non-profit organization, is about raising money — last year we raised \$140,000 for Urban Ministries — but more than that, it's about raising awareness and calling for action in the community.

Charity Ball is about Tracy, a homeless mother of two whose month-long stay at the Helen Wright Center was transformative in stabilizing her life. It is about the countless similar families in Charleston County without enough food. Joining my former classmates at Urban Ministries, picking up a bagged meal, reminded me how easily the difficulties of those we live and work among are forgotten.

Whether while talking with Tracy about her passion for photography or joining a beginner's "Cooking Matters" class at Urban Ministries, the connections formed have allowed me to feel like a true member of the community because of the strand that unites us all—our humanity. Charity Ball has shown me that seeing each person in our communities as *human* and *worthy* is a necessity for social progress.

Please briefly elaborate on one of your extracurricular activities or work experiences.

As I take a quick scan of the competitors at every science fair or competition, there is a clear lack of representation of females and those of lower socioeconomic status. My hope to change this at GSSM took the form of GSSM Future Chemists of America (GCA) organization. By providing bi-weekly chemistry tutoring and hosting the GCA Scholastic Tournament, my goal was to allow a more diverse group of students to feel secure in and pursue their interests in chemistry.

After contacting hundreds of STEM teachers about the tournament, I assigned board members roles, created a registration site, improved the organization's website, and consistently publicized the event, devoting meticulous planning and sleepless nights to its success. On March 18th, I was witness to the formation of a community—a community of learners, competitors, and educators, united by the beauty and complexity of chemistry while building foundations for future endeavors.

Attn: Ford Sand University Admissions Committee

Dr. Veronica Heller

Associate Professor of Materials Science

Duke University | Thomas Lord Department of Mechanical Engineering and Materials Science

Dear Admissions Committee,

It is with great pleasure that I recommend **Gogo Tomago** for admission to Ford Sand University. During the summers of her 10th and 11th grade years, Gogo worked as my research assistant, and I can confidently say that **she displayed exceptional qualities that make her an outstanding candidate for any program of study.**

As you may know, our research group was working on a very important project aimed at formulating a novel fabrication method for a Pt catalyst for carbon dry reformation and analyzing LSPR excitation of hydrogen generation. **Gogo was instrumental in the team's success, which is noteworthy considering that most team members were graduate and undergraduate level college research assistants.** She demonstrated a rare combination of tenacity, entrepreneurship, and interdisciplinary thinking throughout the project.

Gogo's tenacity and perseverance on the project was unlike any other high school student I've ever worked with. She was rigorous and thorough in her data analysis, pushing forth iterations and ideas for the betterment of the team. I remember her spending late nights at the lab, often well past midnight, working on our project over the summer, making sure that we stayed on schedule and achieved milestones. Her ability to work at such a high level alongside much more experienced team members showcased her resourcefulness and intrepidity.

Gogo's interdisciplinary thinking was another standout quality. She showed a keen awareness of how multiple fields in science contributed to our research question. She was able to bridge the gap between chemistry, physics and materials science using her background and found ways to combine their principles into an effective approach to the problem.

Finally, Gogo's entrepreneurial spirit came through in her originality and creativity. She was confident in bringing new and fresh perspectives, and never shied away from presenting her thoughts, even when it was outside of her expertise. Her curiosity and enthusiasm for exploring new territory made for an excellent addition to our team.

To cite an example of how this drives her critically engaged and thoughtful approach, **Gogo's concern for the pressing issues of climate change has led her to think about the positive impact our research project can have on society.** Gogo was particularly interested in the application of the novel catalyst synthesis method on reducing pollution

derived from plastic waste, which is a serious environmental concern with global ramifications. **This approach shows Gogo's innovative thinking and willingness to address significant societal dilemmas.**

I have no doubt that Gogo will continue to excel in any academic environment given her intelligence, skill set, and drive. I hope you consider her application for admission favorably.

Sincerely,

Dr. Veronica Heller



SOUTH CAROLINA GOVERNOR'S SCHOOL FOR

SCIENCE+ MATHEMATICS

401 Railroad Avenue
Hartsville, SC 29550
843-383-3900 TEL
843-383-3903 FAX
www.scgssm.org

Mr. Daniel S. Dorsel '90
PRESIDENT

Dr. Jenifer L. Blair
DIRECTOR OF COLLEGE
COUNSELING & ADVISING
JBlair@governors.school

Ms. Michelle Harter
ASSISTANT DIRECTOR OF
COLLEGE COUNSELING
mharter@governors.school

Ms. Shakarean Hutchinson
COLLEGE COUNSELOR
SHutchinson@governors.school

Mr. Larry Kalangie
COLLEGE COUNSELOR
Lkalangie@governors.school

CEEB Code 410997

ENROLLMENT

TOTAL: **257**
MALE: **44%**
FEMALE: **56%**
STUDENTS OF COLOR: **46%**
(Asian 26%, African-American /
Black 10%, Latinx 8%, Multi/Other
10%)
Class of 2024 APPLIED: **329**
Class of 2024 ENROLLED: **124**
Class of 2023 ENROLLED: **133**

FINANCIAL AID

2022-2023 PERCENT OF
STUDENTS ELIGIBLE FOR
FREE LUNCH PROGRAM:
15%

FACULTY

FULL TIME: **31**
PART TIME: **11**
PERCENT WITH ADVANCED
DEGREES: **100%**
PERCENT WITH A
DOCTORATE: **90%**

SCHOOL PROFILE 2022-2023

The South Carolina Governor's School for Science & Mathematics (GSSM) models educational excellence while nurturing future leaders for South Carolina and beyond. Established in 1988, GSSM is a public high school with residential, virtual, and outreach curricula for academically talented students from across the state.

Our mission is to seek out and advance our state's most talented and motivated students, offering a transforming education in science, mathematics, and engineering that cultivates joy in learning and builds the confidence to engage as ethical leaders with the world's most significant issues.

*Residential program serving juniors and seniors from throughout the state of South Carolina

*Selective, competitive admission to enroll

*Providing programs that are competitive with both public and independent schools

GSSM is a member and represented on the Board of Directors of the National Consortium of Secondary STEM Schools (NCSSS) and is a member of the National Association for College Admission Counseling (NACAC) and The College Board.

ACADEMICS: THE COLLEGE MODEL

GSSM combines rigorous STEM, humanities, and social science courses, intensive labs, field trips, and mentored research to foster students' ability to think critically, apply theory, and develop ideas independently.

Our small faculty-student ratio allows GSSM faculty to give students individual attention to encourage them to reach their full potential. Our faculty teach at the college level, and our residential schedule mirrors a traditional college schedule. GSSM faculty grade rigorously. Many of our students exhaust AP offerings and take courses above the AP level. Out of the 68 STEM courses offered, 21% are AP, 19% are Above AP, and 18% are dual enrollment courses. The remaining are honors level. Above AP courses require AP courses as a prerequisite or are in a discipline without an AP course.

GSSM has dual-enrollment agreements with Coker University and Francis Marion University. Dual enrollment offerings include college-level courses in chemistry, Chinese, computer science, economics, engineering, English, mathematics and physics.

RESEARCH AND INQUIRY PROGRAM

All GSSM students conduct mentored research under the guidance of professional researchers at universities, field sites, and industry partners across the state, nation, and world. Students also have the opportunity to conduct undergraduate-level research at GSSM during the school year under the mentorship of GSSM's faculty (90% PhD) - including research in microwave spectroscopy, computational drug design, ecology, mathematics, and transportation infrastructure.

Through this distinctive program, GSSM students gain direct and practical experience with the process of research as applied in real world contexts. GSSM students become familiar with the methods of discovery, apply critical thinking skills, learn to overcome challenges with rigor and creativity, and challenge their ability to communicate. External research partner sites include Clemson University, College of Charleston, Medical University of South Carolina, University of South Carolina, MIT, international sites in Germany, and many others.

Students complete a research portfolio that communicates their experience to both general and expert audiences. They present their research at the GSSM Annual Research Colloquium and may also share their work at the South Carolina Junior Academy of Science annual meeting, professional conferences, or through submissions to academic journals.

JANUARY INTERIM

All GSSM students participate in a three-week January Interim during which they focus on one course that allows them to pursue a passion or explore a new interest. Courses are diverse in topic (science, technology, the arts), intense, and experiential (often including field experiences and travel). Past courses include: Gliding at the Bermuda High Soaring School, Equine Science and Horsemanship, Origami: The Art of Paperfolding, and The Cooking Lab.

VARSITY ATHLETICS

Approximately 75% of our students, many of whom have never been on an athletic team before coming to GSSM, participate in varsity sports. All our teams are "no cut." Despite the novice status of some athletes, however, GSSM has won numerous athletic competitions, including multiple regional championships with 5 more in the last year in women's tennis, volleyball, cross country, golf, track and field, and state team championships in men's cross country (2017), men's soccer (2018), women's volleyball (2018), women's track and field (2019), and state individual championships in men's and women's track and field (2018, 2019).

Our athletics department employs 30 seasonal coaches, maintains an excellent fitness center and employs a full-time certified athletic trainer with a state-of-the-art training room. We are currently exploring the possibility of building an E-sports program and fielding teams. Varsity sports for women and men include:

Basketball | Golf | Swimming | Track & Field | Cross Country | Soccer | Tennis | Volleyball | Cheer

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[sc_gssm](https://twitter.com/sc_gssm)

[scgssm](https://www.instagram.com/scgssm)

GRADING SCALE

All high schools in South Carolina must use the South Carolina Uniform Grading Scale. Only grades of C or higher receive credit at GSSM. Additional weighting is given for grades earned in honors, AP, and dual enrollment courses. Per the South Carolina Uniform Grading Policy, 0.5 quality points are added to the CP weighting for honors, dual enrollment, and above AP courses, and 1.0 for AP and IB courses. The GPAs provided include all courses listed on the transcript, including courses posted from 8th grade.

Fall 2016 and later

A = 90 – 100 C = 70 – 79
B = 80 – 89 D = 60 – 69

GSSM is on the semester system with interim courses offered in January each year, and mentored research completed during the summer between junior and senior year.

Total graduation requirements for a State of SC and GSSM diploma: **24 Credits**. Our Academic Policies and Course Catalog can be found on our website: www.scgssm.org/residential/courses-and-requirements

Students must take five courses each semester (the equivalent of 15-18 college credit hours); students may take seven+ courses each semester with advisor and administrative approval. To meet GSSM and SC diploma requirements, students must complete:

Mathematics (including Calculus)	4-5
Laboratory Science (including biology, chemistry, and physics).....	3
Foreign Language (in the same language)	2
Computer Science.....	1
Fine Arts.....	1
English/Language Arts	4
Research and Inquiry Experience	0.5
Social Studies.....	3
Interim Courses.....	1
Electives	2.5-3.5

RANKING POLICY

GSSM does not rank its students; we enroll students from across South Carolina, many ranked first in their 10th-grade class. The junior year grade distribution chart provides a context for our students' transcripts.

GPA RANGE

(Weighted/SCUGS) Class of 2023: **3.939 - 5.505**

NATIONAL MERIT RECOGNITION

Class of 2022 National Merit Finalists: **10**

GRADE DISTRIBUTION JUNIOR YEAR, CLASS OF 2023

MATH	A (90-100)	B (80-89)	C (70-79)	D (60-69)
Essentials for Calculus	0	4	4	6
Advanced Math II 111	11	14	0	0
Advanced Math III 112	6	19	0	0
Analysis I	15	20	8	5
Analysis II	21	16	4	2
AP Calculus AB 201	11	11	0	0
AP Calculus AB 202	14	12	2	0
AP Calculus BC (year-long course)	19	4	2	0
SCIENCE				
AP Biology 201	13	21	6	0
AP Biology 202	24	30	11	2
Principles of Chemistry (year-long course)	27	12	3	0
AP Chemistry 201	14	15	4	0
AP Chemistry 202	11	14	1	0
AP Physics 1-A	10	7	3	0
AP Physics 1-B	10	4	6	0
AP Physics C:M	5	7	1	0
AP Physics C:EM	6	5	0	0
COMPUTER SCIENCE				
AP Computer Science	18	9	7	1
ENGLISH				
College English 111	101	43	5	0
College English 112	97	39	8	0
SOCIAL SCIENCE				
AP U.S. History (year-long course)	101	19	3	0

SAT CLASS OF 2022: MIDDLE 50% RANGES AND MEANS

	GSSM MEAN N=113	GSSM MIDDLE 50% RANGE	SOUTH CAROLINA COLLEGE-BOUND SENIOR MEAN	ALL COLLEGE-BOUND SENIOR MEAN
Evidence-Based Reading & Writing	683	640-740	529	533
Math	686	640-750	507	528

ACT CLASS OF 2022: MIDDLE 50% RANGES AND MEANS

	GSSM MEAN N=69	GSSM MIDDLE 50% RANGE	SOUTH CAROLINA COLLEGE-BOUND SENIOR MEAN	ALL COLLEGE-BOUND SENIOR MEAN
Composite	29	26-33	18.6	20.3

ACT CLASS OF 2023, SPRING JUNIOR YEAR:
MIDDLE 50% RANGES AND MEANS

	GSSM MEAN N=79	GSSM MIDDLE 50% RANGE
Composite	28.8	26-33

SAT CLASS OF 2023, SPRING JUNIOR YEAR:
MIDDLE 50% RANGES AND MEANS

	GSSM MEAN N=116	GSSM MIDDLE 50% RANGE
Evidence Based Reading & Writing	666	630-710
Math	682	620-740

SCIENCE CORE COURSES	BIOLOGY ELECTIVES (*ABOVE AP)	CHEMISTRY ELECTIVES (*ABOVE AP)	PHYSICS ELECTIVES (*ABOVE AP)
AP Biology	Marine Biology	Molecular Spectroscopy	*Fluids, Thermodynamics & Optics
Principles of Chemistry	Research in Restoration Ecology	*Introduction to Organics & Biochemistry	*Modern Physics
AP Chemistry	*Molecular Biology of the Cell	*Introduction to Analytical Chemistry	
Chemistry I & II (Dual Enrollment)	*Human Anatomy & Physiology	*Computational Chemistry	
General Physics I & II (Dual Enrollment)	*Principles of Microbiology	*Introduction to Inorganic Chemistry	
AP Physics C:M	*Introduction to Neuroscience	Research in Microwave Spectroscopy	
AP Physics C:EM	*Advanced Genetics	Research in Computational Drug Design	
	*Botany		
	*Biological Evolution		

MATHEMATICS CORE COURSES	MATHEMATICS ELECTIVES (*ABOVE AP)
Essentials for Calculus	*Linear Algebra
Foundations for Calculus	*Abstract Algebra
Concepts for Calculus	AP Statistics
Calculus with Applications	*Multivariable Calculus
Prep for Dual Enrollment Calculus	*Discrete Structures
Calculus I & II (Dual Enrollment)	*Number Theory
	*Ordinary Differential Equations
	Research in Computer Assisted Proof Writing

ENGINEERING VIRTUAL COURSES
Biomedical Engineering
Mechanical & Aerospace Engineering

ENGINEERING ELECTIVES	
Engineering Disciplines & Skills (Dual Enrollment)	Engineering Design and Modeling (Dual Enrollment)
Computer Programming 1 with MATLAB (Dual Enrollment)	Engineering: Product Design
Applications of Engineering Design	Research in Multimodal Transportation Systems
Engineering Mechanics: Statics	Robotics
Engineering: Electronics	

ENGLISH CORE COURSES	ENGLISH ELECTIVES
English Composition and Rhetoric (Dual Enrollment)	Writing in STEM (Dual Enrollment)
Introduction to Literature (Dual Enrollment)	Studies in Dramatic Literature
	Introduction to Film
Reading & Writing Fiction, Drama, & Poetry (Dual Enrollment)	Studies in Creative Writing: Fiction
	African-American Literature
	Studies in Creative Writing: Nonfiction
	Introduction to Philosophy
	Introduction to Science Fiction: Literature
	Gender Studies
	Shakespeare
	Eco-Fiction

FOREIGN LANGUAGE CORE COURSES	FOREIGN LANGUAGE ELECTIVES (*ABOVE AP)
French I	French IV
French II	AP French
French III	Spanish IV
Spanish II	AP Spanish Language
Spanish III	*Advanced Spanish Studies
	*Topics in Hispanic Culture and Linguistics
German II	
German III	
Introduction to Chinese I (Dual Enrollment)	
Introduction to Chinese II (Dual Enrollment)	
Intermediate Chinese III (Dual Enrollment)	
Intermediate Chinese IV (Dual Enrollment)	

GENERAL SCIENCES	
AP Environmental Science	Physics in the Arts
Your Cosmic Context	Astronomy

COMPUTER SCIENCE CORE COURSES	COMPUTER SCIENCE ELECTIVES
AP Computer Science	Introduction to Computer Networking
Computer Science I: Python for Scientist (Dual Enrollment)	Game Design, Prototyping, and Production
	Interactive Visual Programming Using Processing
	Data Structures and Algorithms
	Introduction to Database Design
	Computer Science II: C++ Applications (Dual Enrollment)
	Introduction to Artificial Intelligence

HISTORY AND SOCIAL SCIENCE	
AP U.S. History	The Civil War and Reconstruction
Colonial Latin America	The Sizzling Sixties
Native American Studies	AP Psychology
Ethics, Beauty, & the Environment	

RESEARCH AND INQUIRY	
Mentored Summer Research & Inquiry	Advanced Research & Inquiry Communication

GOVERNMENT, ECONOMICS AND FINANCE	
U.S. Government/Economics	Principles of Economics: Microeconomic Concepts (Dual Enrollment)
AP U.S. Government	Technology Ventures
AP Comparative Government	Quantitative Financial Analysis
Principles of Economics: Macroeconomic Concepts (Dual Enrollment)	International Economics

MUSIC, VISUAL ARTS & ASL ELECTIVES	
Chamber Orchestra I, II, III, IV	2D Art Exploration
Concert Choir I, II, III, IV	Advanced 2D Art Exploration
AP Music Theory	AP Art History
Introduction to Ceramics	Introduction to American Sign Language I, II
Advanced Ceramics	

DISCIPLINARY REPORTING POLICY

As recommended in NACAC's *Guide to Ethical Practice in College Admission*, GSSM clearly states its policy: The Office of College Counseling and Advising will disclose all infractions that result in suspension, expulsion, withdrawal pending disciplinary action, or any other probation status to the colleges to which a student applies. Whether the offense occurred before or after the time of application, or if a student has received an offer of admission, will not preclude an infraction from being reported.

CAMPUS LIFE

We see co-curricular engagement as essential to the holistic experience of students. We encourage all students to get involved in co-curricular activities and expect all students to get involved in the life of the school beyond their academic pursuits, whether through participation, leadership or community service.

Our more than 50 clubs include Business Club, Creative Writing Club, Common Ground, ENGAGE and GirlUP. Our Dean of Students leads our campus life program; our two student activity center coordinators, six residence life coordinators and 12 resident assistants manage it. Our residential halls have a house system with each of the six floors forming a house: Praesidium, Fidelitas, Lux, Veritas, Libertatum, and Fortem. The houses are led by six full-time live-in professional staff members who all have bachelor's or master's degrees. Our staff members facilitate developmental co-curricular programs based on the residential spheres of influence programming model: Social, Leadership, Health and Wellness, Academic and Professional Development. Our students also support the campus, local, and South Carolina communities through a required community engagement program. The program develops citizenship and shows our students gratitude to the State of South Carolina for the opportunity to attend GSSM, and to the local community for supporting our school. We encourage students to design and develop projects related to their personal interests, passions, and community needs. Past projects include:

- Student 2 Student – a tutoring initiative with the local Boys and Girls Club
- Beta Club, National Honor Society, 4H, Student Council, and Service Saturdays at the Humane Society
- A Mental Health Walk-5K coordinated by GSSM students

2019 – 2022 ACCEPTANCES & MATRICULATIONS BOLD INDICATES MATRICULATION

Agnes Scott College

Albany College of Pharmacy and Health Sciences

Albright College

Allegheny College

American University

Amherst College

Anderson University

Appalachian State University

Arizona State University (Main Campus)

Auburn University

Baylor University

Beloit College

Berea College

Berry College

Birmingham Southern College

Boston College

Boston University

Brandeis University

Brevard College

Brown University

Bryn Mawr College

Bucknell University

California Baptist University

California Institute of Technology

Carnegie Mellon University

Carson-Newman University

Case Western Reserve University

Catholic University of America

Centre College

Charleston Southern University

Citadel Military College of South Carolina

Claflin University

Clark Atlanta University

Clark University

Clarkson University

Clemson University

Coastal Carolina University

Coker University

Colgate University

College of Charleston

Colorado College

Colorado School of Mines

Colorado State University (Fort Collins)

Columbia College

Columbia University

Connecticut College

Converse College

Cornell University

Coventry University

CUNY City College

Dalhousie University

Dartmouth College

Davidson College

Delaware Valley University

Denison University

DePaul University

DePauw University

Dickinson College

Drexel University

Duke Kunshan University

Duke University

Earlham College

East Carolina University

East Tennessee State University

Eckerd College

Elon University

Embry-Riddle Aeronautical University (Daytona Beach)

Emory & Henry College

Emory University

Florida Institute of Technology

Florida Polytechnic University

Florida State University

Fordham University

Francis Marion University

Franciscan University of Steubenville

Furman University

Gardner-Webb University

George Mason University

George Washington University

Georgetown University

Georgia Institute of Technology

Georgia State University

Gettysburg College

Goucher College

Greenville Technical College

Grinnell College

Hamilton College

Hampden-Sydney College

Hampton University

Harvard University

Hawaii Pacific University

High Point University

Hofstra University

Hollins University

Howard University

Illinois Institute of Technology

Illinois Wesleyan University

Indiana University (Bloomington)

Indiana University-Purdue University Indianapolis

Iowa State University

Ithaca College

Jacksonville University

John Carroll University

Johns Hopkins University

Kalamazoo College

Kenyon College

Lafayette College

Lander University

Lehigh University

Lenoir-Rhyne University

LeTourneau University

Lewis & Clark College

Liberty University

Lipscomb University

Long Island University (Brooklyn)

Loughborough University

Louisiana State University

Louisiana Tech University

Loyola University Chicago

Loyola University Maryland

Macalester College

Maine Maritime Academy

Manchester University

Marquette University

Mary Baldwin University

Mercer University

Mesa Community College

Miami University (Oxford)

Michigan State University

Michigan Technological University

Milwaukee School of Engineering

Mississippi State University

Missouri University of Science and Technology

Montreat College

Mount Holyoke College

Muhlenberg College

Nazareth College

Neumont College of Computer Science

New College of Florida

New York Institute of Technology

New York University

North Carolina A & T State University

North Carolina State University

North Greenville University

Northeastern University

Northern Michigan University

Northland College

Notre Dame of Maryland University

Oberlin College

Oglethorpe University

Ohio University (Main Campus)

Ohio Wesleyan University

Olin College of Engineering

Oregon State University

Oxford College of Emory University

Parsons School of Design at The New School

Penn State University (Main Campus)

Penn State University (Scranton)

Pepperdine University

Pratt Institute

Presbyterian College

Princeton University

Providence College

Purdue University (Main Campus)

Queen's University

Queens University of Charlotte

Reed College

Rensselaer Polytechnic Institute

Rhodes College

Rice University

Roanoke College

Rochester Institute of Technology

Rollins College

Rose-Hulman Institute of Technology

Rutgers University (New Brunswick)

Rutgers University (Newark)

Saint Louis University

Samford University

Santa Clara University

Sarah Lawrence College

Savannah College of Art and Design

Sciences Po Paris

Scripps College

Seton Hall University

Sewanee: The University of the South

Smith College

South Dakota School of Mines and Technology

Southern Wesleyan University

Southwestern University

Spelman College

St. Andrews University

St. Bonaventure University

St. John's College (Santa Fe)

St. John's University (New York)

St. Olaf College

Stanford University

Stevens Institute of Technology

Stony Brook University

SUNY at Binghamton

SUNY College of Environmental Science and Forestry

Swarthmore College

Syracuse University

Temple University

Texas A&M University

The College of Saint Rose

The College of William and Mary

The College of Wooster

The Ohio State University (Main Campus)

The University of Alabama

The University of Sheffield

The University of Tampa

The University of Tennessee (Knoxville)

The University of Texas at Austin

The University of West Florida

Tufts University

Tulane University of Louisiana

Tuskegee University

Underwood International College, Yonsei University

Union College

United States Military Academy at West Point

United States Naval Academy

University of Aberdeen

University of Akron Main Campus

University of Alabama at Birmingham

University of Alabama at Huntsville

University of Amsterdam

University of Arizona

University of California (Berkeley)

University of California (Davis)

University of California (Irvine)

University of California (Los Angeles)

University of California (San Diego)

University of California (Santa Barbara)

University of California (Santa Cruz)

University of Central Florida

University of Chicago

University of Cincinnati (Main Campus)

University of Colorado Boulder

University of Connecticut

University of Delaware

University of Denver

University of Florida

University of Georgia

University of Glasgow

University of Hawaii at Manoa

University of Health Sciences & Pharmacy

University of Houston

University of Illinois at Chicago

University of Illinois at Urbana-Champaign

University of Kentucky

University of Liverpool

University of Maine

University of Mary Washington

University of Maryland (Baltimore County)

University of Maryland (College Park)

University of Massachusetts (Amherst)

University of Massachusetts (Lowell)

University of Miami

University of Michigan

University of Minnesota (Twin Cities)

University of Mississippi

University of Missouri

University of Mount Union

University of New England

University of New Hampshire (Main Campus)

University of North Carolina at Asheville

University of North Carolina at Chapel Hill

University of North Carolina at Charlotte

University of North Carolina at Greensboro

University of North Carolina at Pembroke

University of North Carolina Wilmington

University of North Dakota

University of North Florida

University of Notre Dame

University of Oklahoma

University of Oregon

University of Pennsylvania

University of Pittsburgh (Main Campus)

University of Portland

University of Puget Sound

University of Richmond

University of Rochester

University of San Francisco

University of South Carolina

University of South Carolina (Aiken)

University of South Carolina (Beaufort)

University of South Carolina (Lancaster)

University of South Carolina (Upstate)

University of South Florida (Main Campus)

University of Southern California

University of Southern Mississippi

University of the Sciences

University of Toronto

University of Utah

University of Vermont

University of Virginia (Main Campus)

University of Washington (Seattle Campus)

University of Waterloo

University of Wisconsin (Madison)

Valdosta State University

Vanderbilt University

Vassar College

Villanova University

Virginia Commonwealth University

Virginia Tech

Virginia Wesleyan University

Vrije Universiteit Amsterdam

Wake Forest University

Washington and Lee University

Ford Sand University

Admissions Review Rubric | Gogo Tomago

Academic Record

Highlights & Observations	Missed Opportunities

Ford Sand University

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Activities & Honors

Highlights & Observations	Missed Opportunities

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Context & Demographics

Highlights & Observations	Missed Opportunities

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Essays (Personal Statement & Supplementals)

Highlights & Observations	Missed Opportunities

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Other Notes, Considerations, or IPs

Highlights & Observations	Missed Opportunities