



2026 St. Bonaventure University Summer Research Program for High School Students (SBU-SRPHS)



Application Deadline: Friday, April 10, 2026

Announcement of Acceptance: Friday, April 24, 2026

Program Dates: Monday, July 13 – Friday, July 24, 2026 (2 weeks)
Approximately 9AM-4PM, but can be flexible

One-on-one research opportunities with SBU faculty

Different career talks

Celebrate project completion with Poster Presentations

Program Description

Are you a high school junior or sophomore interested in pursuing a STEM or humanity career and wanting to go to college? Then consider a research experience by working with St. Bonaventure University faculty on an authentic research project.

Your research experience will take place on the SBU campus. A faculty mentor will work with you on a cutting-edge topic. Speakers from different research fields will share their insights in your future career paths and give you advice on how to prepare for your future success.

You will conclude your research experience by presenting your own project as a poster. Here you will hone your communication skills and make your family proud. Throughout the program you will have the opportunity to bond with peers with the same career interest and passionate faculty who you interact with.

Program Eligibility

Applicants must be completing high school sophomore or junior year before summer 2026.

Application Submission

To apply, prepare the followings:

1. **Transcript:** An unofficial copy of your high school transcript.
2. **Personal Statement:** A one-page personal statement describing why you want to apply to this program.
3. **Housing:** A statement on whether you need on-campus housing accommodations or not. If you do, an adult must accompany you during your stay on campus.
4. **Sponsorship:** A statement on whether an organization/school will sponsor your participation if accepted. If there is, please provide the name of your sponsor and their contact information. Need-based scholarship is available for students without sponsors pending on the availability of funds.
5. **Research Interests:** Read *Faculty Research Descriptions* on the next page and rank your top three areas of interest from the followings:

Biochemistry, Bioinformatics, Biopsychology, Computational Chemistry, Developmental Biology, Digital Humanities, Mathematics/Computer-aided Design, Mechanical/Electrical Engineering, Mental Health in the Media, Human-Computer Interaction, Molecular Genetics, Theology

See the list of faculty research descriptions on the next page.

This is not a residential program. However, on-campus housing options are available. For students who need housing accommodations during the program, please contact Dr. Zhang for details.

*Once accepted, a **\$1000** program fee is required to secure a seat. If an organization/school is sponsoring their student(s), please provide school contact information. Need-based scholarship is available for students without sponsors pending on the availability of funds. Please contact Dr. Zhang for details.*

Please send your application materials electronically to:

Dr. Xiao-Ning Zhang
Professor of Biology, Director of Biochemistry Program
Email: xzhang@sbu.edu
Phone: (716) 375-2485

See program highlights from past years at www.sbu.edu/hsstudentresearch.

Faculty Research Descriptions:

Dr. Chris Bopp: Curious about how people and technology work together? In *Human-Computer Interaction*, a subfield of Computer Science, we explore creative ways to design better interactions between people and AI, software, and hardware systems. No programming experience required!

Mr. Tae Cooke: My area of interest is the intersection between *electronics and mechanics*. If you're interested in one or both of these, we could be a good match. Some options could be: programming a RGB light controller, building a 3D-printed automated coin sorter, making a line-following robot, etc. Whatever you make, you get to take it home at the end!

Mr. Tae Cooke & Dr. Chris Hill: Our area of interest lies at the intersection of *mathematics, computer-aided design (CAD)*, and human perception. Let's work together to design a new "ambiguous object" (e.g., a shape that looks like a circle from one angle and looks like a diamond from another) using the math of vectors, model it using CAD, and then 3D print it.

Dr. Kaitlyn Dykstra: In my lab we study how leukemia develops and is maintained at the cellular level by looking at what genes are abnormally turned on or off in the presence of certain mutations using *molecular genetics* and *biochemical* approaches.

Dr. Audrey Hager: My research, in *biopsychology*, is interested in how interventions such as mindfulness meditation, breathing exercises, and even nature can affect cognitive processes and emotional wellbeing through measuring heart rate variability and brain wave activity.

Dr. Devin Mulvey: My research lies within the broad field of theoretical and *computational chemistry*, where scientists solve complex chemical problems by simulating them on a computer. Consider a summer research project in computational chemistry if you are interested in computer hardware and programming and how scientists use them to study biomolecules!

Dr. Taylor Ott (Theology): My research looks at various ways that people and communities have conflicted with each other in the Roman Catholic Church throughout history. I use post-colonial, feminist, and other theoretical lenses to evaluate these instances and understand what we can learn from them, in terms of ethics and of being a church community, for today.

Dr. Sean Ryan: Wastewater disinfection byproducts that enter into aquatic ecosystems could affect normal embryonic *development* in zebrafish. This project will explore potential developmental defects using *bioinformatic* and *molecular genetic* approaches.

Dr. Caitlin Smith (Digital Humanities): This summer, my research focuses on how online fan communities sacralize fictional texts and create healthy (or not-so-healthy) digital communities. If you're a Brandon Sanderson fan, or if you're interested in seeing how data science and literature can work together, come work with me!

Dr. Sheri Voss: Come explore how the human brain learns and how AI learns — and what happens when they work together through *human-computer interaction*. Curious how AI can help you (or not) in school (and life)? Discover how AI be your friend in learning. To infinity and beyond!

Dr. Tara Walker: My research interest is *mental health in the media*, specifically how advertisements, news stories, and social media posts both reflect the way we think, and shape the way we think about mental health and illness in society. I'm also interested in mental illness stigma, and how and where it shows up in the media environment.