PRISMS SUMMER CAMP

For Middle School Students

High-Caliber Faculty, and Dynamic Curriculum

SESSION I: JULY 15 - JULY 26
SESSION II: JULY 29 - AUGUST 9
ABOUT US

Princeton International School of Mathematics and Science (PRISMS), located in Princeton, New Jersey, is an independent high school accredited by Middle States Association of Colleges and Schools (MSA-CESS). Upholding the educational philosophies of "incorporating the best educational practices in China and the US" and "love and respect", PRISMS is dedicated to nurturing integrity, competence and global vision in our students.

Why are we different?

Designed and taught by PRISMS faculty, our curriculum immerses students in authentic study and life in a top American independent school.

- Challenging Curriculum – Students are challenged with rigorous curriculum taught in English, small class size, personalized and interactive learning.
- Top-notch Equipment – Understand and operate the cutting-edge lab equipment to enrich hands-on experience and hone critical thinking.
- Experienced and Caring Faculty – Build a loving and supportive rapport throughout the program.
- Precious Friendship- Study and have fun with your peers from China to share various interests and the passion for study.

DAILY SCHEDULE

(Sample)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-8:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>8:30-9:45</td>
<td>Period 1: Introduction to Nature Poetry</td>
</tr>
<tr>
<td>10:00-11:15</td>
<td>Period 2: Fantastic Math and Where to Find It</td>
</tr>
<tr>
<td>11:15-12:45</td>
<td>Lunch/Break</td>
</tr>
<tr>
<td>12:45-14:00</td>
<td>Period 3: Rockets and Robots</td>
</tr>
<tr>
<td>14:15-15:30</td>
<td>Period 4: Science course (Biology in Session I/Chemistry in Session II)</td>
</tr>
<tr>
<td>After Hours 16:00 – 17:00</td>
<td>Activities (Additional cost of $100 per session)</td>
</tr>
</tbody>
</table>

CONTACT

Camp Director: Mr. Qin
james.qin@prismsus.org
(609) 454-5580 ext. 5587

BASIC INFORMATION

Session I: July 15 - July 26
Session II: July 29 - August 9
Camp hours: 8:30 am to 3:30 pm
(late pick-up at 5:00 pm)
Ages: 11-14 years
Fees: $1,000/session
Introduction to Nature Poetry

The American Transcendentalist and naturalist, Ralph Waldo Emerson, wrote, “In the presence of nature, a wild delight runs through [us].” Nature is among the most inspiring of all muses, and PRISMS is lucky enough to find itself situated near beautiful walking trails, open fields, verdant forests, and laughing streams. Historically, in the West, as in China and many other cultures, the “nature poem” is its own particular genre, and in this course, we will explore the philosophical and historical development of the nature poem in English language traditions. Together, we will investigate questions like, “What does poetry tell us about the human relationship to nature? How does poetry call upon the natural world to arrive at deeper truths about the human condition?” The course will emphasize reading and discussion with an additional focus on the development of critical thinking skills. Finally and most importantly, the students will write nature poems, and at the conclusion of the course, they will hold a formal poetry reading of their and others’ writings.

About Mr. Carpenter

Mr. Carpenter is a veteran independent school teacher who marks his 27th year as he joins the faculty at PRISMS. His deep and long-standing interest in science and technology has informed his English teaching throughout his career. His passion for technology led him to create a hypertext version of Hamlet in 1995, while he was at Choate Rosemary Hall, and in 2001, he became an early adopter of a paperless classroom as well as web-based syllabi. In 2008, NAIS named him a “Teacher of the Future.” Most recently, he led the English department at Avon Old Farms School. He earned his BA in English from Connecticut College and his MALS with a concentration in humanities from Wesleyan University.

Rockets & Robots (R&R)

Explore aerospace, mechanical, and electrical engineering in the PRISMS makerspace, the PiLab! Our summer course in engineering exploration will excite future engineers with a series of hands on design projects utilizing high-tech tools such as 3D printers, laser engraver, microcontrollers, and computer aided design (CAD). Each week students will use the Engineering Design Process to solve problems and produce unique solutions. The first week of the course will focus on the use of CAD to design, construct, and launch compressed air rockets. The second week of the course will explore autonomous robot design and will conclude with a whole-camp robot competition!

About Mr. Adam Kemp and Dr. Gregory Herman

Mr. Adam Kemp has taught Technology and Engineering for over 10 years at the nation’s top public high school, Thomas Jefferson High School for Science and Technology. During his first two years at TJ he helped create a cross-disciplinary freshman Technology program that integrated its curriculum with English and Biology. After spending a summer working for NASA’s Jet Propulsion Laboratory, Adam returned to TJ and started a course in Systems Engineering whose primary focus was the design, construction and flight of history’s first high school build satellite, TJ3Sat. For the last 8 years Adam has served as the director of TJ’s Energy Systems Lab. A premier research laboratory dedicated to the research and application of energy in its many forms. In addition to his teaching Adam wrote a book, The Makerspace Workbench, which is both a hands-on resource and an overview of his educational philosophy.

As the co-head of the STEAM Department, Mr. Kemp has created an high-tech creative work environment, the PiLab (PRISMS Innovation Laboratory) where students will work in the research, investigation, and creation of tomorrow’s technologies.

Dr. Herman’s career began at MIT, in Cambridge, Massachusetts, while he worked under Dr. Harold E. “Doc” Edgerton in his stroboscopic and sonar imaging laboratories, while majoring in Physics and Electrical Engineering. Subsequently, Dr. Herman received his Ph.D. from the elite College of Optical Sciences, at the University of Arizona, in Tucson, Arizona.

Dr. Herman has been an educator and researcher for over 30 years. At each of Dr. Herman’s affiliated institutions, whether with NASA, with industrial partners, or with universities and high schools, he has mentored and coached a diverse group of individuals, with a wide variety of research projects, helping them all achieve satisfaction and success. When not in the lab, Dr. Herman enjoys golfing, BBQing, hiking, camping, and gardening. Dr. Herman also plays the drums.
Session I: Biology

The two-week biology course includes introduction lectures, hands-on experiments, classroom discussions, and students' presentation. This summer, Dr. Gwen Bleckner will introduce theory and application of modern molecular biology techniques such as CRISPR. Under guidance of Dr. Bleckner, students will design and conduct molecular biology experiments, analyze and discuss the results. Students will be able to experience with molecular biology lab tools, such as bacterial cell culture system, micropipettes, microcentrifuge, DNA gel electrophoresis, and molecular biology software. US laboratory safety training will be provided as well in the beginning of the program. During this program students will obtain basic skills about how to conduct scientific research and have fun!

About Dr. Gwen Bleckner

The instructor Dr. Gwen Bleckner is a biology teacher at PRISMS. Before joining PRISMS, she had been a research scientist and a faculty member at universities for over 10 years. She has taught at college for 7 years and a high school for 2 years. She also has an experience as a scientific advisor/patent agent at an intellectual property law firm.

Session II: Chemistry, Life, Environment and Society

In this two weeks, students will use the laboratory to try out new ideas, investigate the properties of materials and compounds, synthesize compounds, analyze materials, and, in general, solve problems. In general, students will be working with a partner, in some cases the whole class will work collaboratively to collect data and answer a scientific question related to green chemistry and environmental science. It is my hope that after this laboratory course you will understand why chemistry is so interesting, compelling, and important.

About Dr. Steven Chen

Dr. Chen taught high school and college-level chemistry courses as a classroom teacher and competition coach in both RDFZ and PRISMS. With years of teaching practice in both China and United States, Dr. Chen has insightful understanding in the curriculums and strengths of the science education in both countries. Dr. Chen is also an enthusiastic classroom teacher, who can alway motivate the students and cater to students' individual needs. Dr. Chen is acting as a MENTOR – making students around to realize, develop and maximize their potentials, and achieve excellent.

As one of highest awarded coaches, Dr. Chen accumulated ample experience in stimulating and guiding gifted students to achieve excellence in chemistry olympiad. Under Dr. Chen's guidance, Yutong Dai, a graduated PRISMS senior, won a gold medal at the 50th International Chemistry Olympiad last summer. Dozens of students got national awards, more than ten students advanced into the study camp in both China and United States.

Fantastic Math and Where to Find It?

Do you usually stay in classrooms or go out of buildings in math class? Do you play a lot of games to learn mathematics? Have you ever played instruments together in a math class?

Students will take part in a project-based, student-centered math learning program. Using a STEAM based interdisciplinary approach, students will apply mathematical concepts and ideas towards understanding topics in art, engineering, and science. Learning math with games and activities, students will complete projects that help them understand how math relates to the world around us. In math class here, we will experience the beauty and fun in many different places on PRISMS campus. We believe students will understand math much deeper through these rich and interesting experience.

About Mr. Joseph Li & Dr. Andrew Bleckner

Joseph Li always says that he is one of the luckiest persons in the world because he chose the thing he is most interested in and good at as his career – mathematics education. This passion and focus also makes him become the best math competition coach in China and the deputy leader of China IMO team (International Mathematics Olympiad). As a student, he won a lot of awards in math competitions, including 2nd place in China Mathematics Olympiad when he was only a 10th grade student. After becoming a teacher, he helps his students to win even more and more brilliant achievements. During the twelve years that he taught math in RDFZ, his students won 7 gold medals and 1 silver medal in IMO. Mr. Li is also one of the pioneers of teaching reform in China: he attaches importance to stimulate students’ curiosity, to help them comprehend the mathematical ideas through challenging projects and discussions, to reveal the beauty of math and power of mathematical thinking with vivid examples. Therefore he won 1st place in the national teaching competitions of high school teachers, and was invited to the US to discuss the plans for American mathematics curriculum as the only representative of high school teachers. Mr. Li and his colleagues strongly believe that math learning in PRISMS will be interesting and be of high quality.

Dr. Andrew Bleckner has taught math and music at PRISMS for four years. His choral music is published and performed in the United States and abroad. He has taught music and math to students of all ages. He developed an original approach to teaching music creativity to children and led music creativity workshops in primary schools in the Philadelphia area for 10 years. He also taught music theory and composition at the University level for 6 years.