Summer Science Institute

Sponsored by the College of Sciences and Mathematics

What is the Summer Science Institute?

The Summer Science Institute at Auburn University is a summer science program for rising 11th-12th grade students with a high aptitude and interest in the fields of science and math. The program, supported by the College of Sciences and Mathematics at Auburn University, partners students with experienced AU Science and Math research faculty to explore topics more advanced than what is typically taught in a public or private high school environment.

What is the application process?

Applicants must reside in Alabama or Georgia. A limited number of students will be chosen each year on an academically competitive basis. Applications are available online (www.auburn.edu/cosam/ssi) each fall and are due January 31. Applicants will be notified on or before March 31st of acceptance into the program.

What is the cost?

There is a $1050 registration fee per student for program administration. However, the Summer Science Institute is offered at NO COST to its participants due to registration fees being financed by grants and other sponsoring organizations at Auburn University.

When is the Summer Science Institute?

The program typically occurs for 6 consecutive days (Sunday through Saturday) during the month of June.

What is the schedule for the Summer Science Institute?

Accepted participants reside in residential hall on the Auburn University campus and adhere to the following daily schedule.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:30 am – 11:30 am</td>
<td>Morning Instructional Period</td>
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<tr>
<td>11:30 am – 1:30 pm</td>
<td>On-Campus Tour/Speaker</td>
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<tr>
<td>1:30 pm – 4:30 pm</td>
<td>Afternoon Instructional Period</td>
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<tr>
<td>4:45 pm – 7:00 pm</td>
<td>Dinner and downtime in the residential halls</td>
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<tr>
<td>7:00 pm – 9:30 pm</td>
<td>Evening Activity</td>
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<tr>
<td>9:30 pm – 10:15 pm</td>
<td>Downtime at the dorms</td>
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<tr>
<td>10:30 pm</td>
<td>Lights Out!</td>
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Who is designing and facilitating this program?

Dr. Allen Landers (Carr Professor of Physics) and Mary Lou Ewald (Director, COSAM Outreach) work with faculty representatives from each of the 5 departments that comprise the College of Sciences and Mathematics at AU to design
a truly unique and advanced educational experience for SSI participants. Dr. Landers’ research and outreach expertise in combination with the extensive experience in program development of our science outreach educators result in a program that is like no other in the Southeast.

Who will be supervising the students?

During the day, students will be supervised by faculty members and graduate students in the college. During the evening, students will be supervised by undergraduate and graduate students in the sciences/mathematics.

All Summer Science Institute instructors, counselors, and staff have undergone a rigorous application and screening process following Auburn University camp personnel policies. All personnel have extensive experience working with K-12 children and have undergone a Federal background check. Students will be supervised 24-hours/day.

Which members of the AU faculty lead the different instructional sessions?

- Dr. Paul Cobine – Department of Biological Sciences
- Dr. Ryan Comes – Department of Physics
- Dr. Mike Fogle - Department of Physics
- Dr. Nicholas Giordano – Department of Physics
- Dr. Anne Gorden - Department of Chemistry and Biochemistry
- Dr. John Gorden - Department of Chemistry and Biochemistry
- Shawn Jacobsen - Department of Biological Sciences
- Dr. Uwe Konopka – Department of Physics
- Dr. Marcelo Kuroda – Department of Physics
- Dr. Allen Landers- Carr Professor of Physics, Department of Physics
- Dr. Mark Liles - Department of Biological Sciences
- Dr. Mary Mendonca - Department of Biological Sciences
- Dr. Brad Merner - Department of Chemistry and Biochemistry
- Dr. Steven Mansoorabadi – Department of Chemistry and Biochemistry
- Dr. David Maurer – Department of Physics
- Dr. Konrad Patkowski – Department of Chemistry and Biochemistry
- Dr. Aaron Rashotte - Department of Biological Sciences
- Dr. Chris Rodger - Department of Mathematics and Statistics
- Dr. Stephanie Shepherd – Department of Geosciences
- Dr. Aaron Rashotte - Department of Geosciences

What types of activities will students engage in during the instructional sessions?

Topics from each of the 5 departments that comprise the College of Sciences and Mathematics (Geosciences, Chemistry/Biochemistry, Physics, Biological Sciences, Mathematics/Statistics) will be addressed during the Institute. A sampling of topics will include:

- Quantum Electrodynamics
- Synthesis and Spectroscopy of Polymers and Nanostructures
- The Mathematics of Digital Information Encoding
- Scanning Electron and Digital Microscopy
- DNA Sequencing and Bioinformatics

What makes this program different from other science programs?

The Summer Science Institute is not a science camp. It is an institute for highly motivated high school juniors and seniors with a serious interest in pursuing a math, science, or related degree. Students will experience science at the
cutting edge level in collaboration with Auburn University’s unique faculty and facilities, helping set the stage for advancement in their careers in science or science related fields.

More Information?

Contact Mary Lou Ewald at ewaldml@auburn.edu, or call 334-844-5745 or visit www.auburn.edu/cosam/ssi.