

STUDENT INQUIRY AND RESEARCH

Ignite your passion through cutting-edge research alongside professionals in your field of interest.



 **IMSA**
Illinois Mathematics and Science Academy

Student Inquiry
and Research

WELCOME TO REAL-WORLD RESEARCH

Student Inquiry and Research (SIR) supports student-driven, real-world research experiences both on and off campus alongside professional mentors culminating in a capstone conference-style presentation and publication of findings. IMSA's flagship SIR program allows students to pursue their own interests and curiosities, investigate questions there are no known answers to, hone problem-solving skills and challenge themselves in new ways while earning one academic credit and vital experience on their high school transcript.

DEDICATED RESEARCH DAYS

During the academic year, IMSA dedicates one day each week for students to pursue research and other interests outside the classroom. Known as I-Day (Inquiry Day), students can engage in SIR projects designed to last between one and two years. The SIR team works with students to identify research projects, look for potential mentors, coordinate transportation to research sites and oversee projects and student success.

RESEARCH MENTORS

Through SIR, students interact with professional research mentors online, on campus with IMSA faculty, or off campus with those serving prestigious institutions, including the University of Chicago, Illinois Institute of Technology, Northwestern University, Lurie Children's Hospital, Shedd Aquarium, Morton Arboretum, the University of Illinois at Chicago, Loyola University, Fermilab, and Argonne National Laboratory just to name a few.

RESEARCH AREAS

Behavioral and Social Sciences
Biology
Chemistry
Computer Science
Engineering
Environmental Science
Earth and Space Sciences
History
Mathematics
Medical and Health Sciences
Physical Science

"I graduated from IMSA in 2019. During my time at IMSA, I was a part of the SIR program guided by Professor Louis Kauffman from UIC. I think I speak for both of us when I express how incredible of an opportunity SIR was for us in high school, and how grateful we are to have been able to do something so interesting and impactful at such a young age."

Devika Prasad, IMSA Class of 2019

ELIGIBILITY & REQUIREMENTS

- Students must have completed their first year at IMSA and be in good academic standing
- Acknowledge/register interest with the SIR Program Team by emailing sir@imsa.edu
- Attend an SIR Information Session
- Draft a letter to SIR Program Team for approval prior to contacting a potential mentor
- Complete assignments leading up to your IMSAloquium presentation including proposal, annotated bibliography, introduction, progress report, abstract
- Participate in IMSAloquium with presentation and poster display
- Finalize project and submit a final paper
- Plan for 160 hours of time for your project investigations

TIP! SIR experiences make unique recommendation letters for college applications!

IMSAloquium

IMSAloquium is an Annual Conference and Showcase featuring students' work that inspires audiences with the creativity and ingenuity involved in Student Inquiry and Research. Parents, research mentors, IMSA staff and students, and outside visitors are welcome.

Recognition at National Conferences & Scholarly Publications

Completing a Student Inquiry and Research project is a noteworthy achievement in real-world research, publication, and presentation. IMSA students can earn recognition and honors outside of IMSA, including presentations at national and international conferences and scholarly publications. Some recent selections are available from IMSA's Digital Commons.

Networking Opportunities & Connections

SIR opens doors for many opportunities to leverage the project results and experiences within the broader educational and scientific communities. Possibilities for sharing student results include submission to professionals in appropriate fields for review and publication, presentations at conferences and competitions, and opportunities for further study or travel, including:

- Illinois Junior Academy of Sciences (IJAS)
- International Student Science Fair (ISSF)
- Japan Super Science Fair (JSSF)
- NCSSS Student Research Conference

The Grainger Center

The Grainger Center for Imagination and Inquiry (GCII) at IMSA is a dedicated space for on-campus research studies and was made possible through the generous donation of the Grainger Foundation. The Grainger Center aims to expand IMSA's physical space for "electronic and scientific tinkering" through the Student Inquiry and Research Program.

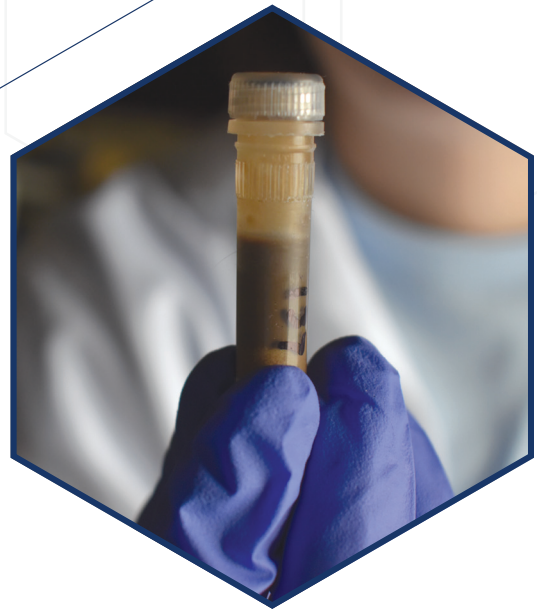


Student Abstracts



Digital Commons





Student Inquiry and Research connects students with on-campus or off-campus professional researchers. Students carry out a research investigation under the guidance of the researcher. SIR is a process enabling the student to learn about a field, generate an understanding of the outstanding questions in the field, and carry out an investigation centered around one question. Students may choose from preexisting projects, proposed areas of research, or student generated projects approved by the SIR Program Team.

PROGRAM PATHWAYS

SIR students receive a “pass” or “fail” grade, assessed by SIR Management Team in consultation with the SIR Advisor. They do not count toward the minimum course requirements for graduation. Students may enroll in SIR for both their junior and senior years and/or in the summers before their junior and senior years.

COURSE	ENROLLMENT	PREREQUISITES	DURATION
SIR 100	Fall	None	Two Semesters
SIR 103	Summer	None	Summer
SIR 200	Fall	SIR 100 / 103	Two Semesters
SIR 203	Summer	SIR 103 / 200	Summer
SIR 300	Fall	SIR 200 / 203	Two Semesters

SIR PROGRAM TEAM

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