The internationally recognized Illinois Mathematics and Science Academy® (IMSA) develops creative, ethical leaders in science, technology, engineering and mathematics. As a teaching and learning laboratory created by the State of Illinois, IMSA enrolls academically talented Illinois students (grades 10–12) in its advanced, residential college preparatory program, and it serves thousands of educators and students in Illinois and beyond through innovative instructional programs that foster imagination and inquiry. IMSA also advances education through research, groundbreaking ventures and strategic partnerships.

 Established by the State of Illinois to develop talent and leadership in science, technology, engineering and mathematics (STEM), the Illinois Mathematics and Science Academy® (IMSA) has become an internationally recognized, world-class powerhouse for inspiring, challenging and nurturing talented students who will use their exceptional abilities to improve people’s lives. IMSA’s advanced residential college preparatory program enables academically talented Illinois students in grades 10 through 12 to reach extraordinary levels of achievement. The Academy’s students are widely recognized by organizations such as the College Board Advanced Placement Program, The Wall Street Journal and Newsweek. IMSA’s innovative student inquiry and research programs have enabled students to win numerous awards from national and global competitions including Intel Science Talent Search, the Siemens Competition in Math, Science and Technology, the International Physics Olympiad, the High School Mathematical Contest in Modeling and the China Girls Mathematical Olympiad.

 As a resource for the people of Illinois, the Academy serves thousands of teachers and students throughout Illinois and across the country. IMSA’s award-winning statewide programs include teacher professional development in research-based and practice-proven instruction in mathematics, science and technology. The Academy’s statewide programs ensure that young students, particularly the underserved, have opportunities to excel in mathematics and science.

 The Academy also works with educational, business, government and entrepreneurial partners to develop, test and share innovative ways to enhance teaching and learning in science, technology, engineering and mathematics.

 Published October 2009
History and Governance

IMSA was established in 1985 by the Illinois General Assembly as part of the State’s comprehensive educational reform package to address the critical need for citizens highly skilled in STEM fields. The Board of Trustees and is funded by the Illinois legislature under the Illinois Budget of Higher Education appropriation.

Funding

IMSA’s operating budget is funded by the State of Illinois, which supports most on-campus and some statewide programs and services. Co-curricular activities for resident students and most of IMSA’s non-resident programs are supported by fees from program participants. IMSA also secures supplemental local, state and federal government grants for programs, as well as private donations and grants through the IMSA Fund for Advancement of Education (IMSA Fund). Examples of recent major donors to the IMSA Fund include Abbott Fund, Helen Throm Edwards Charitable Trust, Lloyd A. Fry Foundation, Paul Galvin Memorial Foundation Trust, Mottrola Foundation, Park Bros. Foundation and Tellable Foundation. The growing endowment will eventually provide annual support for innovation, as approved by the IMSA Fund Board, and for specific projects of interest to donors and IMSA. In support of its total operating budget, IMSA receives about 1 in fees, gifts, and contracts for every $3 of state funding.

Residential College Preparatory Program

Named among the top public college preparatory programs in the nation by US News and World Report national rankings. IMSA’s mission is to guide and create educational opportunities that are uniquely designed to: 

- Provide an environment for students to achieve academic excellence, academic leadership, and academic success.
- Prepare students for admission to and success in colleges and universities.
- Engage students in meaningful and relevant learning experiences.
- Foster personal and social development.
- Promote the use of technology in education and life.
- Prepare students for leadership in STEM fields.

In the past decade, IMSA has secured more than $52,000 in fellowships in its student programs and 44% of students register for graduate school or technical programs.

Learn more: www.imsa.org/program/program-residential

Programs Serving Educators and Students Throughout Illinois and Beyond

IMSA Excellence Network (IMSN)

Offer an on-site professional development program through IMSA for teachers, grade 6-12 and middle school students (grades 6-8) who are identified as gifted and talented in mathematics, science, and social studies. Since 1991, IMSA's curriculum specialists have delivered over 600,000 hours of professional development services through the IMSN program. The program also provides enrichment and support to gifted students in grades 6-8.

Teacher Candidate Institute (TCI)

In collaboration with a university partner, TCI offers six-week over summer institutes that enable aspiring educators to enhance their knowledge and skills through a wide range of instructional activities from planning to assessment to student learning in a mentored environment. TCI focuses on curriculum, technology and mathematics in STEM content and to increase the number of well-prepared, culturally responsive candidates in these critical areas.

Expansion of Programs and Services

To assist the programs and services of IMSA to reach a broader audience, IMSA opened two IMSA Field Offices in 2009 (Chicago and the Quad Cities), each of which open the door to distant learners. Through these offices, IMSA extends the reach of its programs and services by providing outreach and support for students, teachers, and parents in Illinois and beyond.

IMSA Kidz Institute® (K.I.)

Offers various programs of hands-on enrichment activities for students in grades 3-12 on the IMSA campus, within schools and communities throughout Illinois for late elementary (grades 4–5) and middle school students. The Mean ACT composite score for IMSA’s Class of 2009 was 31.5, 10.4 points above the national average for college-bound seniors.

Mean ACT composite score

- 40.5% White/Non-Hispanic; 40.8% Asian/Pacific Islander (6% African American; 3.2% Hispanic; 2.5% Multiracial; 0.2% Other)

Multicultural Development

IMSA is committed to recruiting, retaining and developing diverse students who have talent and interest in STEM, and is committed to increasing the number of Illinois and rural communities throughout Illinois.

Multiple assessment tools build a profile of deep understanding of knowledge across all disciplines. Assessments also measure a student’s increased levels of research and problem solving. To provide collaboration, IMSA does not use absolute grades or percentages to determine results.

Innovation and Entrepreneurship

Launched in 2009–2010, CoolHub.IMSA, proposes entrepreneurial practices and student experiences that empower students to learn real-world solutions to many of the world’s most pressing problems in STEM fields. CoolHub addresses the need for relevant and engaging learning experiences in the classroom, and creates a real-world context where students are presented with opportunities to apply what they have learned. CoolHub provides hands-on educational experiences where students may use to further advance their ideas.

Professional Staff

IMSA conducts national searches for many members of its exemplary professional staff, which include presidium award winning professionals, authors and Nobel Laureates in physics. All faculty members have advanced degrees with 49% holding doctoral degrees. In addition, 23% of faculty members are certified by the National Board for Professional Teaching Standards (NBPTS).

Admission and Student Recruitment

IMSA is a tuition-free 4-year secondary school located in Sugar Grove, Illinois. It is the only high school in the nation specifically designed for students highly skilled in STEM fields. Illinois students who meet the following criteria are eligible for admission to IMSA:

- Completion of 4 years of English and 3 years of mathematics, science, and social studies
- Highest number of IMSA graduates (Classes 2005–2009) include:
  - 1,919 for Illinois Institute of Technology
  - 1,349 for Illinois Institute of Technology
  - 1,343 for University of Illinois at Chicago
  - 896 for University of Illinois at Urbana-Champaign
  - 882 for Case Western Reserve University

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Research, Evaluation and Scholarship

IMSA is in the unique position of developing the instruments for change, making the change, and evaluating the change. This dual role has increased the impact of IMSA’s programs and has enhanced the disclosure of its outcomes. The significant and effective implications of the projects include:

- Fine-tuning effective methods for reaching selected audiences
- Identifying critical needs
- Developing new programs
- Determining the impact of programs
- Evaluating the effectiveness of programs
- Preparing new instruments
- Monitoring the impact of programs
- Enhancing instructional effectiveness
- Enhancing the knowledge base
- Improving the efficiency of the educational process

IMSA's highly accomplished graduates are forging new frontiers as nationally recognized scientists, entrepreneurs, engineers, information technology specialists and leaders in other fields.

IMSA alumni have been featured for their next-generation technological applications by Business Week, Fortune, Good Morning America, The Wall Street Journal and the annual Wired online achievement awards. IMSA alumni were part of the start-up teams that created Netscape, PayPal and YouTube. As volunteers for IMSA and donors to the IMSA Fund for Advancement of Education, their gifts of “time, talent and treasure” increase IMSA’s capacity to achieve its mission and goals. For profiles of IMSA’s Board of Trustees Alumni Awards recipients, visit www.imsa.org/alumni/awards.

Alumni

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