

Illinois
Mathematics
and
Science
Academy

A Pioneering Educational Community

PROFILE

ACADEMIC Program

Standards of Significant Learning

Standards of Significant Learning (SSLs) represent the habits of mind which contribute to integrative ways of knowing. We expect these ways of knowing to broaden and deepen over time. The SSLs are interconnected and synergetic in practice and instruction.

IMSA faculty and other educators with whom we work use these SSLs to design a wide range of learning experiences:

Developing the Tools of Thought

- Develop automaticity in skills, concepts, and processes that support and enable complex thought.
- Construct questions which further understanding, forge connections, and deepen meaning.
- Precisely observe phenomena and accurately record findings.
- Evaluate the soundness and relevance of information and reasoning.

Thinking about Thinking

- Identify unexamined cultural, historical, and personal assumptions and misconceptions that impede and skew inquiry.
- Find and analyze ambiguities inherent within any set of textual, social, physical, or theoretical circumstances.

Extending and Integrating Thought

- Use appropriate technologies as extensions of the mind.
- Recognize, pursue, and explain substantive connections within and among areas of knowledge.
- Recreate the “beautiful conceptions” that give coherence to structures of thought.

Expressing and Evaluating Constructs

- Construct and support judgments based on evidence.
- Write and speak with power, economy, and elegance.
- Identify and characterize the composing elements of dynamic and organic wholes, structures, and systems.
- Develop an aesthetic awareness and capability.

Thinking and Acting with Others

- Identify, understand, and accept the rights and responsibilities of belonging to a diverse Community.
- Make reasoned decisions which reflect ethical standards, and act in accordance with those decisions.
- Establish and commit to a personal wellness lifestyle in the development of the whole self.

“IMSA is asking (its) faculty to make two further changes:

- 1) To stretch beyond one discipline to cover many disciplines;*
- 2) To stretch beyond the technical expert and become, and exemplify, the thoughtful creative problem-finder. These are very demanding stretches...[Y]ou are on the right track, and I think that you have an excellent chance of making it—which will place the rest of us greatly in your debt.”*

Dr. Howard Gardner, Harvard University

Curriculum

The Academy's academic program offers rigorous courses in mathematics, science, the arts and the humanities. IMSA's Integrative Learning System provides the framework for curriculum development, and courses are designed to foster student capacity for integrative thinking. Courses emphasize essential concepts over text-based content—the focus being the quality of understanding rather than the quantity of information. As *apprentice investigators*, students engage in individual and group research in all areas. To help promote collaborative exploration and discovery, neither grade point averages nor class rankings are used.

As a result of IMSA's quest to understand the possibilities of a more integrative curriculum, we recognize that a holistic and interconnected view of learning has relevance to applications within and across traditional disciplinary boundaries. Our mission is to transform mathematics and science teaching and learning. We strive to accomplish this by developing leaders who understand that knowledge is not compartmentalized by disciplines or void of real-world applications. The leaders we seek to develop will lead through their manner of thinking, working, and relating to others in the world around them.

“Real changes in education come from need and leadership. America has lots of the former and little of the latter... Occasionally, there is an opportunity to build an exemplar, one that is so powerful that it shows clearly what can be done by showing what is being done. IMSA is becoming that exemplar. When it is fully realized, it will be a blueprint for how to reconstruct education....”

North Central Accreditation Report, conclusion

- IMSA adheres to the standards set forth in the *Statement of Principles of Good Practice* of the National Association of College Admission Counselors.
- IMSA is accredited by the North Central Association of Colleges and Schools.
- **ACT/CEEB Code Number: 140177**

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Aurora, Illinois 60506-1000

IMSA Web Address <http://www.imsa.edu/team/cac>

...the Journey Continues

First longitudinal study of IMSA graduates report reveals positive results

Board approves revolutionary strategic plan for curriculum, instruction, assessment and statewide alliances

IMSA goes online with the world, establishes a direct Internet connection

1990

IMSA students named only pre-college presenters at the National Conference on Undergraduate Research

State and national experts conduct unique accreditation review, cite IMSA as leader and exemplar

Minority student enrollment doubles

IMSA establishes Center for Problem-based Learning

1992

IMSA pilots school-based partnerships to transform teaching and learning in Illinois

Calculus-based Physics Study advances national understanding of gender issues in math and science

IMSA Alumni Association established

1994

Reinvention process increases program personalization, flexibility, rigor and coherence to enhance student learning

The Harris Family Foundation becomes first million dollar+ donor

IMSA commemorates 10th Anniversary, launches second decade

1996

1989

Mentorship program established

First senior class earns top ACT scores in the nation, captures many academic, cocurricular and scholarship awards (subsequent classes earn similar honors)

Charter Class graduates

IMSA dedicated to the People of Illinois

1991

IMSA unveils Integrative Learning System for curriculum development

Academic program emphasizes "integrative ways of knowing"

Student enrollment grows to 650

1993

Board approves innovative system of faculty development and accountability

IMSA embraces bold mission to transform mathematics and science teaching and learning through connections

IMSA identity evolves from "school" to "educational laboratory"; research and statewide service programs increase

1995

Students launch CD-ROM interactive science magazine for elementary students

Integrated Science, Mathematical Investigations, Problem-based Learning and other initiatives serve Illinois educators and IMSA students

IMSA offers advanced courses and other learning experiences in mathematics, science, the arts and humanities, with an emphasis on connections within and among the disciplines. Students learn how to integrate content and skills, demonstrating broad knowledge of important concepts. This teaching approach focuses on the quality of understanding rather than the quantity of information.

Like IMSA's academic program, the residential life program connects with the mission of the Academy and has specific student learning outcomes. The three-year residential life curriculum is organized around concepts such as community, communication, self awareness, personal accountability, wellness, relationships and diversity.

Significant Decisions for 1996-97 include:

New schedule framework

The new modular framework, based on 20-minute mods, provides for different types of courses and learning experiences to be scheduled in different combinations of time. The designers believe this can help reduce "start and stop" fragmentation and "wasted" class time, increase opportunities for program integration and coordination, and support learning in terms of "commitment time" rather than "seat time."

Three program pathways for sophomores

For the first time, the Academy will offer three program pathways for sophomores: Existing Core Program; Integrated Science/Integrative Learning Experience; and Perspectives. Each will have unique characteristics and support student learning in different ways. Offering three program pathways increases opportunities for IMSA, as an educational laboratory, to test different programs and methods to see how each can advance the transformation of teaching and learning in mathematics and science through an emphasis on ethical leadership and connections.

Increased opportunities for program personalization

A project team is identifying opportunities for greater program personalization and processes by which requests from students, parents and staff will be considered. In the spirit of "one size does not fit all," the Academy's goal is to expand the number and variety of learning pathways for students. This could mean changes in course sequencing, waivers of or substitutions for certain requirements, different ways of earning credit, different assignments within classes, different uses of class time, etc.

Use of Wednesdays for student-directed plans of inquiry

For the first time, students will develop their own plans of inquiry. These will represent areas for focused learning and investigation around meaningful questions of interest to the student. Faculty and staff will serve as mentors in this process. The student plans of inquiry are a first step toward increasing future expectations and opportunities for student research. Wednesdays will be used to support plan of inquiry work, anchored by clear and specific expectations but flexible structures.

Navigation

A comprehensive Navigation framework to help connect various programs, activities and services in a more holistic, integrated manner, is being developed. The framework will help each student navigate his or her way through the IMSA living and learning experience for all three years. Greater emphasis will be placed on helping students understand how they can develop as powerful, integrative and ethical thinkers, learners and leaders. This will include more exploration of and dialogue about the meaning and importance of IMSA's Standards of Significant Learning.

Intersession

A series of week-long focused learning experiences for students offers a wide variety of topics contributing to both the pioneering and the community aspects of the evolving IMSA. Intersession 1996 included such experiences as "Programming for Poets", "Secrets of Forensic Fiber Microscopy", "Advanced Unix Shell Scripting", a trip to Spain, and a backpacking journey to Arizona with the National Outdoors Leadership School (NOLS)...just to name a few.

Faculty

IMSA conducts a national search for exemplary faculty who engage in collaborative inquiry, implement authentic learner assessments, facilitate discovery learning, and support and nurture student development.

The average teaching experience is approximately 14 years and nearly 30% hold PhDs. The faculty include several Presidential Award winners, noted authors and fellowship recipients. Faculty provide leadership in professional organizations and serve as resources for the greater educational community of Illinois and the nation.

Mentorship

Mentorship is an interactive research partnership in which students work with scholars and scientists in educational institutions, corporations, and laboratories. Areas of investigation have included superconductivity, pediatric oncology, computer graphics, genetics, art restoration, paleontology, environmental engineering, archeology, neuropsychiatry, fluid dynamics, immunology, public policy, and numerous other fields that reflect students' interests in particular areas of study and the expertise of mentors. Mentorship focuses on process rather than product. However, students are expected to consider publication or public presentation of their work. Students document their research in lab notebooks and subsequently present their work in public forums. Through mentorship, students develop creative problem-solving abilities, research skills, refinement of thought processes, and the commitment needed to extend the limits of existing knowledge. Through interactions with mentors, students become active participants in the community of scholars and scientists.

Information and Communication Systems

To support its innovative curriculum, IMSA combines the resources traditionally found in academic libraries, computer centers, and audio/visual services into a single, integrated information and communication system. Resources include more than 500 microcomputers as well as access to local and wide-area computer networks, on-line and CD-ROM databases along with automated retrieval systems, more than 40,000 monograph volumes and 200 periodicals, a video production laboratory, a 1200-volume curriculum-based video collection, satellite-based video communications, and a Telecommunications Instructional Consortium classroom.

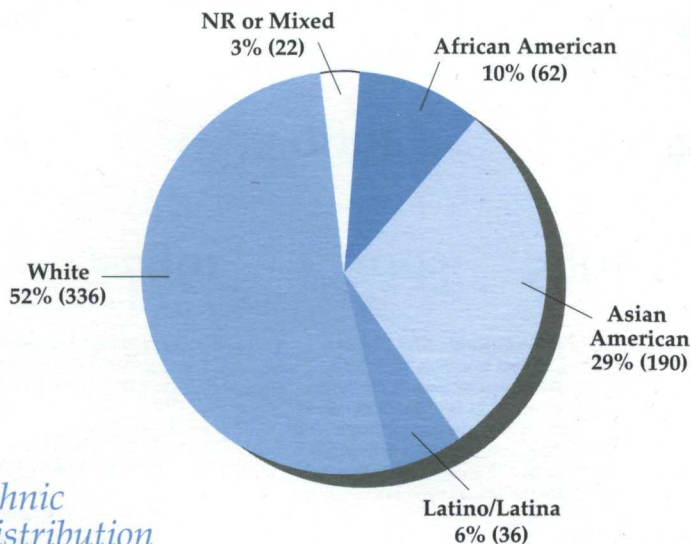
As a result of IMSA's connection to the Internet, students now enjoy almost instantaneous access to worldwide databases, library card catalogs, and scientists and researchers. Through computer networking, IMSA's young scholars consult with mentors at Argonne National Laboratory, Fermi National Accelerator Laboratory, and other scientific and research organizations. Students also access supercomputers at the Cornell National Supercomputing Facility and the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign.

Membership in the Illinois Library Computer Systems Organization gives IMSA access to library materials among the 44 member institutions as well as borrowing privileges on-site at these colleges and universities.

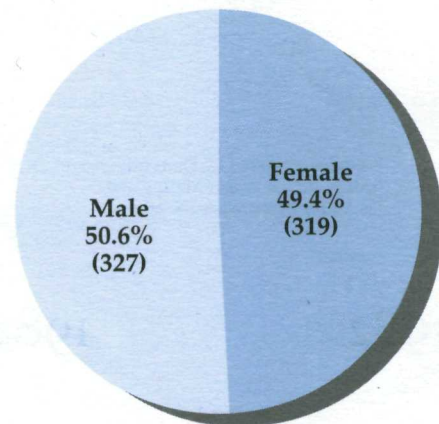
Residential Life

The Residential Life staff seeks to establish nurturing living and learning environments in the residence halls. The residence halls are where learning and living meet. In the halls students meet new people, encounter new ideas and differing values, and develop personal accountability. Resident Counselors facilitate the development of communities that foster student's social, educational and ethical growth and development. Community success and individual success depend on the cooperation of all community members.

Ethnic Distribution

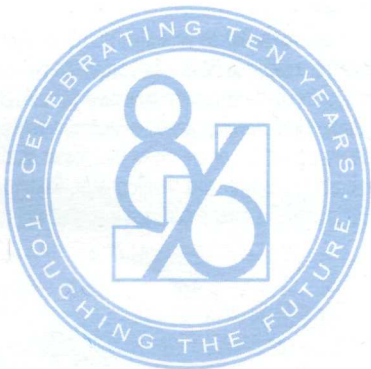


Gender



IMSA College & Academic Counseling

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- *IMSA is accredited by the North Central Association of Colleges and Schools.*
- *ACT/CEEB Code Number: 140177*



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Happy Birthday IMSA!

On September 7, 1996, the Illinois Mathematics and Science Academy celebrated its 10th Anniversary. To commemorate and celebrate this important milestone in IMSA's history, various special events will be held in Illinois throughout the 1996-97 academic year.

IMSA idea inspired by Dr. Leon Lederman, Dr. Walter Massey and the Valley Industrial Association

Dr. Leon Lederman and Governor James R. Thompson lead efforts to establish IMSA

Charter students recruited and selected; Charter staff hired

Charter Class of 1989 enrolls (210 students); a *Pioneering Educational Community* is born

IMSA Fund for Advancement of Education, a not-for-profit foundation, established

IMSA reaches three-class capacity (sophomores, juniors and seniors); 509 students enroll

Annual recognition program started to honor students' home school teachers

Budget authority transferred to the Illinois Board of Higher Education

The dream...
1982 - 1985

...becomes reality
1986 - 1996

1982

1984

1986

1988

1983

1985

1987

Friends of Fermilab and the Corridor Partnership for Excellence in Education convene curriculum design workshop; participants propose IMSA

IMSA established by Illinois General Assembly to "offer a uniquely challenging education for students talented in the areas of mathematics and science" and "serve the school system of the State as a catalyst and laboratory for the advancement of teaching"

Board of Trustees appointed

Mayor's Task Force leads efforts to locate IMSA in Aurora

Students and staff hold class in the State Capitol to underscore the promise of Illinois' investment

Supplemental appropriation by Illinois General Assembly sustains IMSA's growth

IMSA launches programs for other Illinois schools, teachers and students

Furnas Foundation becomes IMSA's first private sector donor

Academic program emphasizes "apprentice investigation"

IMSA Course Offerings

Visit www.imsa.edu/team/cac for course descriptions and other information.

Mathematics

*Core Courses:

Mathematical Investigations I, II, III, IV

AB Calculus I, II

BC Calculus I, II, III

*proficiency testing is required before appropriate placement

Math Electives:

Advanced Geometry

Advanced Problem Solving

Introduction to Algebraic Structures I, II

AP Computer Science

Assembly Language Programming

Computer Seminar

Data Analysis

Discrete Mathematics

Exploring Math Topics Using
Mathematica™

Geometry I/II

Introduction to Pascal

Multivariable Calculus

Number Theory

Problem Solving

Independent Study

Senior Research Project

Science*

Core Courses:

Integrated Science I, II[†]

Sophomore Chemistry

Sophomore Physics

University Biology

Biology Electives:

Biotechnology

Cell Biology

Ecology

General Microbiology

Genetics

Human Anatomy and Physiology

Pathogenic Microbiology

Patterns of Biological Diversity

Chemistry Electives:

Advanced Chemistry

Biochemistry

Facets of Thermodynamics

Organic Chemistry I, II

Survey of Organic Chemistry

Physics Electives:

Advanced Physics

Astrophysics

Calculus-based Physics/Mechanics

Calculus-based Physics/Electricity
& Magnetism

Electronics

Geophysics

Observational Astronomy

Topics in Modern Physics

Other Courses:

Independent Study

Science, Society and the Future

(0.5 credit in Science,

0.5 credit in Social Science)

Scientific Writing and Data Analysis

Junior Project in Science

Senior Research Project

Wellness Education

Sophomore Wellness

Junior Wellness

Senior Wellness

Independent Study

Senior Research Project

Social Science

Core Courses:

American Studies

World Studies

Senior Social Science Electives:

European History

International Relations

Macroeconomics

Microeconomics

Politics and Society

Psychology

Science, Society and the Future

(0.5 credit in Social Science,

0.5 credit in Science)

Topics in Psychology

Topics in Recent U.S. History

Utopia/Anti-Utopia

(0.5 credit in Social Science,

0.5 credit in English)

Independent Study

Senior Research Project

All courses are honors.

English

Core Courses:

Sophomore English

Junior English

Senior English Electives:

Belief in Question in Modern Literature

Galileo, Science & The Church

Topics in American Literature:

Modern Poetry

Modern Irish Literature

Portraits of Creativity

Russian Consciousness in Literature

Short Story: Theory and Practice

Senior Research Project

Utopia/Anti-Utopia

(0.5 credit in English,

0.5 credit in Social Science)

Independent Study

Senior Research Project

Foreign Language

French I, II, III, IV

German I, II, III, IV, V

Japanese I, II, III

Latin II, III, IV

Russian I, II, III

Spanish I, II, III, IV, V

Independent Study

Senior Research Project

Fine Arts

Art Design I

AP Music Theory

Ceramics

Chamber Choir

Concert Choir

Independent Study: Art

Photography

Symphonic Band

Symphonic Wind Ensemble

Symphony Orchestra

Independent Study: Music

Senior Research Project

Courseload Requirements

Students must enroll in a minimum of 5 academic courses each semester. Fine Arts and Wellness do not constitute academic courses. Students taking 6 courses may take one course pass/fail. Students taking 7 courses must take one course pass/fail. If a performing Fine Arts course is taken as an 8th course, it must be taken pass/fail, and one other course pass/fail. All courses that serve to fulfill graduation requirements must be taken for a grade.

*All Science courses except Calculus-Based Physics, Pathogenic Microbiology, and Science, Society and the Future are laboratory-based.

[†]Interdisciplinary program integrating content from physics, chemistry, biology, earth science, and technology.

Graduation Requirements

Class of 1997

Mathematics/Science 8.0 credits

8.0 credits in Mathematics and Science which must include:

- minimum 4.0 credits in science including at least 1.0 credit above the introductory required courses in chemistry, physics and biology.
- at least 3.0 credits in mathematics which include core courses that move toward completion of calculus. Students are to be enrolled in a mathematics course each semester.
- at least one additional credit in mathematics or science.

Social Science 2.5 credits

American Studies, World Studies and one semester elective.

English 3.0 credits

Sophomore English, Junior English and one senior elective each semester of senior year.

Foreign Language 2.0 credits

2.0 credits taken during two of the three years at the Academy, including completion of an Academy Level II course.

Fine Arts 0.5 credit

Wellness

Fulfilled by completing a three-year program in Wellness Education.

Consumer Education

Fulfilled by passing competency exam or the completion of a designated course.

Constitution

Completion of American Studies satisfies the Federal and State Constitution requirements.

Senior Research/Independent Study Project

An optional research project or independent study is available on a by approval basis only for 0.25-2.0 credits per semester.

Community Service and Campus Work Service

Each student must satisfactorily complete 80 hours of community service and 300 hours of campus work service.

Total Graduation Requirements

Equal 16.0 units for grades 10-12 at the Academy. This allows for flexibility in student choices during the senior year, including time for in-depth study in particular courses and topics of interest.

Fall 95 Grade Distribution

Course	Number	A	B	C	D	P	F	Other (inc /w/)
Mathematics								
Core:	211	30.81%	43.13%	20.38%	5.21%	0%	0%	.01%
Electives:	57	50.88%	24.56%	7.02%	0%	17.54%	0%	0%
Science								
Science Core:	213	45.08%	35.68%	19.25%	0%	0%	0%	0%
Chemistry Electives:	60	68.33%	15.00%	6.67%	0%	10.00%	0%	0%
Physics Electives:	51	64.71%	17.65%	1.96%	0%	15.69%	0%	0%
English								
Junior English (Core)	213	68.08%	27.23%	4.69%	0%	0%	0%	0%
Social Science								
World Studies (Core)	213	58.22%	36.15%	5.63%	0%	0%	0%	0%
Foreign Language	216	45.88%	44.44%	7.87%	0%	1.85%	0%	0%
Fine Arts	102	30.39%	18.62%	2.94%	0%	48.04%	0%	0%

In light of IMSA's selective admission process and in order to promote collaborative exploration and discovery, the Academy does not provide grade point averages nor class rankings. All courses are honors.

Spring 96 Grade Distribution

Course	Number	A	B	C	D	P	F	Other (inc /w/)
Mathematics								
Core:	211	27.49%	48.82%	22.75%	.95%	0%	0%	0%
Electives:	60	61.67%	25.00%	5.00%	0%	8.33%	0%	0%
Science								
Science Core:	154	37.66%	36.36%	24.68%	0%	0%	0%	1.29%
Chemistry Electives:	75	45.33%	24.00%	9.33%	0%	21.33%	0%	0%
Physics Electives:	90	64.44%	21.11%	2.22%	0%	12.22%	0%	0%
Biology Electives:	52	42.31%	46.15%	1.92%	0%	9.62%	0%	0%
English								
Junior English (Core)	213	67.14%	25.82%	5.63%	0%	0%	0%	1.40%
Social Science								
World Studies (Core)	213	58.22%	33.80%	6.57%	0%	0%	0%	.94%
Foreign Language	215	55.35%	32.56%	9.30%	0%	2.79%	0%	0%
Fine Arts	115	27.83%	15.65%	0%	0%	56.52%	0%	0%

Grade Distribution

Class of 1997

- Mean SAT I composite score for IMSA seniors was 1397, 384 points above the national average for college-bound seniors.
- Mean ACT composite score for IMSA seniors was 30.3, 9.4 points above the national average for college-bound seniors.
- Of IMSA juniors and seniors taking the Advanced Placement Examinations, 75% scored "3" or better and 49% scored "4" or better.
- Mean SAT II score for IMSA seniors taking the Mathematics-Level IIC Test was 729, 91 points higher than the national average for college-bound seniors. Mean IMSA score for the English Writing SAT II Test was 659, 93 points higher than the national average for college-bound seniors.
- A total of 59 members of the IMSA Class of 1997 were named Semifinalists in the 1997 National Merit and National Achievement Scholarship Programs. Additionally, 59 were named National Merit and National Achievement Commended students.

SAT II Scores for the Class of 1996 Middle 50% Range and Means

Test	Total IMSA Scores Reported	Middle 50% Range	IMSA Mean	Illinois Mean	National Mean
<i>English</i>					
Writing	137	610-720	659	624	566
Literature	10	NA	646	632	579
<i>Mathematics</i>					
Level I C	6	NA	602	617	570
Level II C	130	680-790	729	680	638
<i>Sciences</i>					
Biology	32	650-720	696	624	596
Chemistry	52	610-730	667	642	606
Physics	61	600-750	680	653	629
<i>History</i>					
American	5	NA	632	631	584
World	1	NA	NA	611	568
<i>Languages</i>					
Chinese L/R	3	NA	NA	760	752
French	1	NA	NA	601	589
German L/R	1	NA	NA	520	544
Spanish	9	NA	619	613	590
Spanish L/R	1	NA	NA	566	552

American College Testing (ACT) Scores for the Class of 1996 — Middle 50% Middle 50% Range and Means

Subscore	Female N-79	Male N-91	IMSA Mean	Middle 50% Range	Illinois Mean	National Mean
<i>English</i> (1-36) Mean	29.6	28.9	29.2	27.1-31.9	20.7	20.3
<i>Mathematics</i> (1-36) Mean	30.4	31.6	31.0	29.8-33.2	20.8	20.2
<i>Reading</i> (1-36) Mean	31.5	30.7	31.1	27.9-35.4	21.5	21.3
<i>Science Reasoning</i> (1-36) Mean	28.5	29.8	29.2	26.8-31.5	21.3	21.1
<i>Composite</i> Mean	30.2	30.9	30.3	29.0-32.4	21.2	20.9

Percentages of IMSA Students in Test Score Intervals

Score Intervals	English		Mathematics		Reading		Science Reasoning		Composite	
	M	F	M	F	M	F	M	F	M	F
27-36	76	84	90	89	81	85	82	71	87	89
22-26	20	14	10	9	12	15	16	23	10	10
19-21	4	3	0	1	3	0	1	5	3	1
1-18	0	0	0	1	3	0	0	1	0	0

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Preliminary Scholastic Assessment Test (PSAT) Scores Class of 1996-Middle 50% Range and Means

	Verbal		Math	
	Mid 50% Range	Mean	Mid 50% Range	Mean
Female (N=97)	59.2-70.9	65.1	63.6-73.1	68.4
Male (N=111)	57.1-69.2	63.2	67.1-76.2	71.7
IMSA (N=208)	58.1-70.0	64.1	65.4-75.0	70.2
Illinois Mean		48.6		49.6
National Mean		48.7		48.9

Scholastic Assessment Test (SAT I) Scores Class of 1996-Middle 50% Range and Means

Class of 1996	Female (N=84)		Male (N=104)		Total (N=188)	
	Verbal	Math	Verbal	Math	Verbal	Math
IMSA Mid 50% Range	620-750	650-740	640-750	700-780	630-750	670-780
IMSA Mean	681	695	680	733	681	716
IL Col. Bound Sr. Mean	563	558	566	594	564	575
All Col. Bound Sr. Mean	503	492	507	527	505	508

Advanced Placement (AP) Examination Scores for IMSA Students: 1996

AP Grade	United States History	Biology	Chemistry	Computer Science A	Computer Science AB	Economics: Micro	Economics: Macro	English Lang. & Composition	English Lit. & Composition	European History	French Language	German Language	Gov. & Politics: United States	Gov. & Politics: Comparative	Latin: Vergil	Mathematics Calculus AB	Mathematics Calculus BC	Music: Theory	Physics B	Physics C: Mechanics	Physics C: Elec. & Mag.	Psychology	Spanish Language	Total Grades Reported	Percent of Total
5	2	9	7		13			11	9	2	1	1				1	22	1	10	9	1	2	102	23	
4	4	20	6		4		1	17	4		1			1		3	23		14	8	1	1	112	26	
3	5	13	17		4	3	1	5	2	5	1		1		8	26		10	7		2	114	26		
2	4	5	12	1	6	7	8		1	2	1		1		4	7		5	11	2		79	18		
1			2		2	1	1					1		1		9		1		1		1	21	4	
TOTAL	15	47	44	1	29	11	11	33	16	9	4	2	2	2	1	16	87	5	39	36	4	6	428	100	

IMSA Mean	3.26	3.70	3.09	2.0	3.69	2.18	2.18	4.18	4.31	3.22	3.5	3.0	4.0	3.0	1.0	3.06	3.50	3.0	3.0	3.74	3.36	3.25	3.5		
Natl Mean	2.75	3.06	2.81	2.34	3.33	2.95	2.96	2.73	3.08	3.04	2.92	3.0	2.96	2.91	2.81	2.78	3.47	3.18	2.77	3.24	3.24	3.27	3.55		

IMSA Students and Alumni: A Partial Listing of Accomplishments and Contributions

- A team of three students won first place in the **Second Annual Student Technology Leader's Competition** sponsored by Multi-Media Schools Magazine (grades 9-12 category). The students were honored for the creation of REAL SCIENCE, a CD-ROM interactive science magazine for students in grades 3-5. They also were invited to present their work at the 1996 National Educational Computing Conference in Minneapolis, MN.
 - Three IMSA students were among 250 students selected to present at the research and ethics conference held in honor of physicist and Nobel Peace Laureate Andrei Sakharov.
 - IMSA was one of four schools in the midwest selected to participate in Ameritech's special long distance learning experience called "**Meet the Candidates.**" Activities planned include a straw poll of students and a video teleconference interview by a student press corps of the presidential candidates.
 - Six students were among the 168 nationally who qualified to take the **USA Mathematical Olympiad** exam.
 - IMSA was honored as a "**Best in the State**" winner of Redbook magazine's "**America's Best Schools**" project. Previously IMSA was honored for "curriculum innovation" (1992) and "academic achievement" (1994).
 - Two IMSA semi-finalists were named in the **1996 Westinghouse Science Talent Search Competition**.
- The following are a sampling of IMSA students' recent presentations:
- Epstein-Barr Virus: The Role of CD 45 in Lymphoma Development at the **88th Annual Meeting of the Illinois State Academy of Science**.
 - Creation of an Interactive Potawatomi Database and Computer Modeling of the Migration of Great Lakes Indian Tribes at the **20th Annual Great Lakes History Conference** in Grand Rapids, MI.
 - Uses of Trypsin to Evaluate Aprotinin formulations at the **15th Annual Midwest Enzyme Chemistry Conference at the University of Illinois-Chicago**.

Class of 1996

<i>College</i>	<i>A</i>	<i>EN</i>	<i>College</i>	<i>A</i>	<i>EN</i>
Allegheny College	1	0	Eckerd College	4	1
American University	5	2	Emory University	10	1
Amherst College	2	1	Fisk University	1	0
Asbury College	1	0	Florida Institute of Technology	3	1
Augustana College	2	2	George Washington University	5	1
Bard College	1	0	Georgetown University	5	3
Barnard College	1	0	Georgia Institute of Technology	2	1
Bates College	2	0	GMI Engineering & Management Institute	2	0
Beloit College	2	0	Grinnell College	3	0
Benedictine University	1	1	Grove City College	2	0
Bethel University	1	0	Harvard/Radcliffe Colleges	4	2
Biola University	1	0	Harvey Mudd College	1	1
Blackburn College	1	0	Hope College	2	0
Boston College	1	0	Howard University	3	1
Boston University	11	0	Illinois Institute of Technology	8	2
Bowdoin College	2	0	Illinois State University	1	0
Bowling Green State University	1	1	Illinois Wesleyan University	11	2
Bradley University	10	5	Iowa State University	1	1
Brandeis University	1	0	Johns Hopkins University	5	0
Brown University	7	2	Kalamazoo College	2	0
Bucknell University	3	2	Kenyon College	1	0
California Institute of Technology	5	1	Knox College	5	4
Calvin College	3	0	Lawrence University	1	1
Carleton College	8	1	Lehigh University	1	0
Carnegie Mellon University	2	0	Lewis & Clark College	1	1
Case Western Reserve University	4	1	Loyola Marymount University	1	0
Cedarville College	1	1	Loyola University-Chicago	5	0
Clark University	1	0	Luther College	1	0
College of Wooster	2	2	Macalester College	6	1
Colorado College	1	0	Massachusetts Institute of Technology	10	5
Columbia University	4	0	Miami University	2	0
Cornell University	4	0	Michigan State University	3	1
Covenant College	1	0	Middlebury College	1	0
Dartmouth College	1	0	Milwaukee School of Engineering	2	1
DePaul University	3	0	Mount Holyoke College	2	0
DePauw University	1	0	New York University	5	0
Drake University	2	0	North Carolina State University	1	0
Duke University	9	5	Northeast Missouri State University	2	0
Earlham College	5	0	Northern Illinois University	1	0

A=Accepted EN=Enrolled

continued on reverse side

Class of 1996

<i>College</i>	<i>A</i>	<i>EN</i>	<i>College</i>	<i>A</i>	<i>EN</i>
Northwestern University	40	5	University of Illinois-Chicago	7	4
Oberlin College	3	0	University of Illinois-Urbana	145	57
Ohio State University	1	0	University of Iowa	1	0
Pennsylvania State University	4	1	University of Kansas	1	0
Pomona College	5	2	University of Miami	4	2
Princeton University	1	1	University of Michigan-Ann Arbor	7	0
Purdue University	6	1	University of Minnesota-Twin Cities	1	0
Reed College	1	0	University of Missouri-Kansas City	1	0
Rensselaer Polytechnic University	2	1	University of Missouri-Rolla	4	1
Rice University	9	2	University of North Carolina-Chapel Hill	1	0
Rochester Institute of Technology	1	0	University of North Dakota-Grand Forks	1	0
Rose-Hulman Institute of Technology	4	0	University of Notre Dame	1	0
Smith College	2	2	University of Oregon	1	0
Southeast Missouri State University	1	1	University of Pennsylvania	5	2
St. John's College (NM)	1	1	University of Pittsburgh	1	0
St. Joseph College (IN)	1	0	University of Rochester	9	1
St. Louis University	3	0	University of Southern California	7	1
St. Olaf College	2	1	University of Texas-Austin	2	0
Stanford University	10	5	University of Washington	1	0
SUNY-Binghamton	1	0	University of Wisconsin-Madison	8	3
Syracuse University	1	0	University of Wisconsin-Stevens Point	1	0
Tennessee State University	1	0	Valparaiso University	6	3
Texas A&M University	1	1	Vanderbilt University	8	2
Trinity University	1	0	Vassar College	1	0
Tufts University	5	1	Villanova University	1	0
Tulane University	9	4	Warren Wilson College	1	0
Tuskegee University	1	1	Washington University in St. Louis	30	5
United States Air Force Academy	1	1	Wellesley College	2	1
United States Naval Academy	2	1	Wheaton College (IL)	4	1
Universidad de Yucatan	1	1	William Smith College	1	1
University of Akron	1	1	Williams College	6	3
University of Alabama-Birmingham	1	0	Wofford College	1	1
University of Alabama-Huntsville	1	0	Xavier University of Louisiana	2	0
University of Arizona	1	0	Yale University	3	1
University of Chicago	19	3			
University of Colorado-Boulder	1	1			
University of Detroit-Mercy	1	1			

A=Accepted EN=Enrolled

BELIEF

Statements

The Illinois Mathematics and Science Academy is the nation's only three-year public residential high school for students talented in mathematics and science.

We believe that...

- .. meaning is constructed, not prescribed.
- .. all individuals have equal intrinsic worth.
- .. all people have an innate desire to learn.
- .. the human mind is the world's greatest resource.
- .. each person has the potential to change and to bring about change.
- .. without trust no human relationship can thrive.
- .. the survival of global civilization depends primarily upon the quality of the education provided to all citizens.
- .. each person is responsible for his/her own choices and actions.
- .. belonging to a group requires alignment of self-interests and the common good.
- .. excellence is worth the effort, but not always worth the costs.
- .. achieving our vision of the future depends upon our willingness to sacrifice.
- .. aversion to risk taking stifles innovation and creativity.
- .. learning is an individual, life-long endeavor.
- .. valuable learning results from both failing and succeeding.
- .. all adults share responsibility for the well-being of all children.
- .. the ability to discern and create connections is the essence of knowing.
- .. a good life is characterized by harmony among the emotions, the body, the intellect, and the spirit.
- .. the process of education is more than merely the accumulation of facts.
- .. ethical conduct is essential to a harmonious life.

(8/95)

The mission of the Illinois Mathematics and Science Academy, a pioneering educational community, is to transform mathematics and science teaching and learning by developing ethical leaders who know the joy of discovering and forging connections within and among mathematics, science, the arts, and the humanities by means of an exemplary laboratory environment characterized by research, innovative teaching, and service. (8/95)

MISSION

"Graduates of the Illinois
Mathematics and Science
Academy will be among the
leaders of tomorrow in science, mathemat-
ics, art and humanities...As leaders in our
state, nation and world, they will have
in common a lifelong yearning to learn, a
sense of excitement about discovery, skills
of analysis and synthesis, values of honesty
and integrity, and a sense and appreciation
of the wonder of it all."

*Dr. Walter Massey
President, Morehouse College
IMSA National Advisory Board*



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