IMSA Ranks as #1 Public School in Illinois, Offers Unmatched Learning Experiences

Ranked the #1 Public High School in Illinois and #2 in America, the 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 in its tuition-free residential Academy for grades 10-12. Students are challenged with a rigorous curriculum designed to develop them into problem solvers and critical thinkers.

Notable IMSA alumni include YouTube Co-Founder Steve Chen, PayPal Co-Creator Yu Pan, Yelp Co-Founder Russell Simmons, SparkNotes and OkCupid Co-Founder Sam Yagan, and Hearsay Social Founder, Clara Shih.

Research and Innovation
20% of students’ time is spent outside the classroom exploring independent study, research, innovation or entrepreneurship. Student Inquiry and Research (SIR) exposes students to authentic research experiences in a breadth of fields through on- and off-campus collaborations with IMSA faculty, university faculty and over 70 world-class institutions. IMSA’s Center of Innovation and Inquiry stimulates entrepreneurship including prototyping, makerspace activity and the launching of new tech start-ups and business ventures.

Leadership and Service Learning
Through IMSA’s service learning program, students are required to complete 200 hours of service during their three year tenure. In addition, the Leadership Education and Development (LEAD) program fosters social awareness and civic engagement among youth in their communities.

Grading
In order to promote collaborative exploration and discovery, the Academy does not provide grade point averages or class averages.
### Mathematics and Computer Science

<table>
<thead>
<tr>
<th>Core Courses (Sophomore)</th>
<th>Post-Calculus Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB Calculus I</td>
<td>Advanced Problem Solving</td>
</tr>
<tr>
<td>AB Calculus II</td>
<td>Advanced Topics in Mathematics</td>
</tr>
<tr>
<td>BC Calculus I</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>BC Calculus II</td>
<td>Abstract Algebra</td>
</tr>
<tr>
<td>BC Calculus III</td>
<td>Multi-Variable Calculus</td>
</tr>
<tr>
<td>BC Calculus I/II</td>
<td>Number Theory</td>
</tr>
<tr>
<td>BC Calculus II/III</td>
<td>Theory of Analysis</td>
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<table>
<thead>
<tr>
<th>Pre-Calculus Core Courses</th>
<th>Pre-Calculus Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometry</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>Mathematical Investigations I/II</td>
<td>Game Theory &amp; Rationality</td>
</tr>
<tr>
<td>Mathematical Investigations II</td>
<td>Graph Theory with Applications</td>
</tr>
<tr>
<td>Mathematical Investigations III</td>
<td>Mathematical Modeling</td>
</tr>
<tr>
<td>Mathematical Investigations IV</td>
<td>Modern Geometries</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Problem Solving</td>
</tr>
<tr>
<td>Statistical Experimentation and Inference</td>
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</tr>
<tr>
<td>Statistical Exploration and Description</td>
<td>Statistical Experimentation and Description</td>
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<table>
<thead>
<tr>
<th>Calculus Core Courses</th>
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</tr>
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<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre-Calculus Electives</th>
<th>Pre-Calculus Electives (Sophomore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrete Mathematics</td>
<td>Graphic Novels—Image and Text</td>
</tr>
<tr>
<td>Game Theory &amp; Rationality</td>
<td>Modern Theater</td>
</tr>
<tr>
<td>Graph Theory with Applications</td>
<td>Speculative Fiction Studies</td>
</tr>
<tr>
<td>Mathematical Modeling</td>
<td>Modern World Fiction</td>
</tr>
<tr>
<td>Modern Geometries</td>
<td>Victorian Fiction</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Rhetoric and Communication: Science</td>
</tr>
<tr>
<td>Statistical Experimentation and Inference</td>
<td>Statistical Experimentation and Inference</td>
</tr>
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<table>
<thead>
<tr>
<th>Computer Science Core Course (Sophomore)</th>
<th>Computer Science Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science Inquiry</td>
<td>Advanced Programming</td>
</tr>
<tr>
<td></td>
<td>Micro-controller Applications</td>
</tr>
<tr>
<td></td>
<td>Object Oriented Programming</td>
</tr>
<tr>
<td></td>
<td>Web Technologies</td>
</tr>
<tr>
<td></td>
<td>Advanced Web Technologies</td>
</tr>
<tr>
<td></td>
<td>CS Seminar: Android Apps Development</td>
</tr>
<tr>
<td></td>
<td>CS Seminar: UNIX/Linux and Cybersecurity</td>
</tr>
<tr>
<td></td>
<td>CS Seminar: Machine Learning</td>
</tr>
</tbody>
</table>

### Science

**Core Courses (Sophomore)**
- Methods in Scientific Inquiry
- Scientific Inquiries—Biology
- Scientific Inquiries—Chemistry
- Scientific Inquiries—Physics

**Physics Electives**
- Biophysics
- Computational Science
- Engineering
- Micro-controller Applications
- Modern Physics
- Physics—Sound and Light
- Physics—Calculus-based Mechanics
- Physics—Calculus-based Electricity and Magnetism
- Planetary Science
- Geology

**Chemistry Electives**
- Advanced Chemistry—Structure and Properties
- Advanced Chemistry—Chemical Reactions
- Biochemistry
- Environmental Chemistry
- Organic Chemistry I
- Organic Chemistry II
- Survey of Organic Chemistry
- Medicinal Chemistry

**Biology Electives**
- Advanced Biological Systems
- Evolution, Biodiversity and Ecology
- Microbes and Disease
- Seminar in Biology—Molecular Biology Lab
- Cancer Biology
- Pathophysiology
- Biology of Behavior

### English

**Core Courses (Sophomore)**
- Literary Explorations I
- Literary Explorations II

**Core Courses (Junior)**
- Literary Explorations III

**Junior/Senior Electives**
- Creative Writing Workshop
- Graphic Novels—Image and Text
- Modern Theater
- Speculative Fiction Studies
- Modern World Fiction
- Victorian Fiction
- Tolkien—Language and Literature

### Social Science

**Core Courses (Sophomore)**
- American Studies

**Core Courses (Junior)**
- The World in the Twentieth Century

**Junior Electives**
- Ancient World Religion and Philosophy
- Conflict in World History
- Historic Global Commodities and Culture

**Senior Electives**
- African American Studies
- America in the Contemporary World
- History of Astronomy
- History of Biology
- History of Technology and Culture
- Modern Genocide and Mass Violence
- Political Theory
- United States Government and the Constitution
- Modern Economics
- History of the Environment

### World Languages

**Core Courses (Sophomore)**
- French I
- French II
- French III
- French IV
- French V
- German I
- German II
- German III

**Senior Electives**
- Mandarin Chinese I
- Mandarin Chinese II
- Mandarin Chinese III
- Russian I
- Russian II
- Russian III
- Spanish II
- Spanish III
- Spanish IV
- Spanish V

### Wellness Education

**Core Course (Sophomore)**
- Moving and Learning

**Wellness Electives**
- Dance
- Movement and Relaxation
- Net and Wall Games
- Outdoor and Indoor Games
- Wellness in the Water
- Stress Management for Life

### Fine Arts

**Core Courses (Sophomore)**
- 3d Design Foundations
- Art and Design
- Digital Photography
- Observational Drawing
- Printmaking
- Scientific Illustration
- Art and Technology

**Music Electives**
- Chamber Choir
- Chamber Strings
- Concert Band
- Concert Choir
- Music Appreciation
- Music Theory
- String Orchestra
- Wind Ensemble

**Visual Arts Electives**
- 3d Design Foundations
- Art and Design
- Digital Photography
- Observational Drawing
- Printmaking
- Scientific Illustration
- Art and Technology
IMSA Academic Highlights

**Recognition of Scholarships, Class of 2020**
- 222 Seniors
- 35 National Merit Semifinalists
- 67 Commended Students

**ACT Scores - Class of 2019**

<table>
<thead>
<tr>
<th></th>
<th>IMSA Mean (n=155)</th>
<th>IMSA Middle 50% Range</th>
<th>IL College-Bound Senior Mean</th>
<th>All College-Bound Senior Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite</td>
<td>31.9</td>
<td>30.0 - 35.0</td>
<td>24.3</td>
<td>20.7</td>
</tr>
</tbody>
</table>

**SAT Reasoning Test - Class of 2019**

<table>
<thead>
<tr>
<th></th>
<th>IMSA Mean (n=172)</th>
<th>IL College-Bound Senior Mean</th>
<th>All College-Bound Senior Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERW</td>
<td>703</td>
<td>513</td>
<td>536</td>
</tr>
<tr>
<td>Math</td>
<td>742</td>
<td>506</td>
<td>531</td>
</tr>
</tbody>
</table>

**Sample of Advanced Placement (AP) Examinations for 2018-2019 School Year**

Although IMSA does not offer AP courses, 597 AP examinations were administered to 278 students.

<table>
<thead>
<tr>
<th>Course</th>
<th>No. of Students Tested</th>
<th>Average Scores</th>
<th>Biology</th>
<th>Calculus BC</th>
<th>Chemistry</th>
<th>Computer Science A</th>
<th>Physics C: E&amp;M</th>
<th>Physics C: Mech</th>
<th>English Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>48</td>
<td>3.8</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>128</td>
<td>4.2</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
</tr>
<tr>
<td>Chemistry</td>
<td>128</td>
<td>3.4</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>128</td>
<td>3.9</td>
<td>128</td>
<td>82</td>
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<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
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<tr>
<td>Physics C: E&amp;M</td>
<td>128</td>
<td>3.7</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
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<tr>
<td>Physics C: Mech</td>
<td>128</td>
<td>4.2</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
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<td>29</td>
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<tr>
<td>English Language</td>
<td>128</td>
<td>4.1</td>
<td>128</td>
<td>82</td>
<td>64</td>
<td>49</td>
<td>52</td>
<td>4.2</td>
<td>29</td>
</tr>
</tbody>
</table>

**A Sample Grade Distribution Report for Junior Course Enrollment (2018 - 2019)**

A = Exceeds course requirements  B = Meets course requirements  C = Needs improvement  D = Does not meet course requirements, no credit awarded

<table>
<thead>
<tr>
<th>Course</th>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math. Investigations IV</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Advanced Chemistry—Structure and Properties</td>
<td>B+</td>
<td>B+</td>
</tr>
<tr>
<td>Advanced Biological Systems</td>
<td>B</td>
<td>B-</td>
</tr>
<tr>
<td>Physics: Calculus-based Mechanics</td>
<td>B-</td>
<td>C+</td>
</tr>
<tr>
<td>Literary Explorations III</td>
<td>C-</td>
<td>C-</td>
</tr>
<tr>
<td>Ancient World Religion and Philosophy</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>BC Calculus I</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Adv. Chemistry—Chemical Reactions</td>
<td>B</td>
<td>B-</td>
</tr>
<tr>
<td>Physics: Calculus-based Electricity &amp; Magnetism</td>
<td>C+</td>
<td>C+</td>
</tr>
<tr>
<td>Advanced Biological Systems</td>
<td>C-</td>
<td>C-</td>
</tr>
<tr>
<td>Microbes and Disease</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>Speculative Fiction Studies</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>The World in the Twentieth Century</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

**20% of students’ time is spent on independent research and internships.**

**31.9 is the mean composite ACT score of the IMSA Class of 2019.**

**43,333 hours of community service are performed by IMSA students each year.**

**16 of 35 required classes for graduation are in math and science. (Each class is .5 credit.)**
2019 College Placement Profile (198 Graduates)

Out-of-State Schools
- Private Out-of-State: 13.6%
- Public Out-of-State: 31.8%
- Non-US Colleges: 1.0%

In-State Schools
- Private In-State: 16.7%
- Public In-State: 53.6%

Total percentage of public and private college matriculation:
- 45.4% Private
- 53.6% Public
- 1.0% Non-US Colleges

Student Population of Academy, 2019-2020

Percentage of students identifying as:
- 0.2% American Indian or Alaskan Native
- 40.0% Asian
- 10.0% Black or African American
- 9.0% Hispanic or Latino
- 8.7% Two or More Races, Non-Hispanic or -Latino
- 32.1% White

Percentage of economically disadvantaged students: 15.9%

Male = 50%  Female = 50%