Shumaiev, Oleksandr 61902142285

MIT Transfer Admissions

September 2017 Transfer Application

Oleksandr Shumaiev
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Forms

Personal Background

(* = required)

1. Legal name*

Last/Family name	First/Given name	Middle	Suffix
Shumaiev	Oleksandr		

2. Preferred first name (if applicable)

Sasha

3. Date of birth*

07/05/1999

4. Place of birth*

City/State or Province/Country

Kharkiv/Kharkiv region/Ukraine

5. Mailing address (if different from the address used to create your Slideroom account)

6. Gender identity

Check all that apply. (Optional)

Male

7. Sex assigned at birth*

Due to US federal reporting requirements, we must ask this question in a binary fashion. We suggest responding with the sex that is indicated on your original birth certificate or other similar government documents.

Male

8. How would you describe your sexual orientation?

Check all that apply. (Optional)

Straight/Heterosexual

9. Have you previously applied to MIT for freshman admission?*

No

10. Have you previously applied to MIT for transfer admission?*

No

11. U.S. Armed Forces status*

No relationship

12. In what MIT academic department do you propose to register?*

Physics

Citizenship & Ethnicity Information

(* = required)

In connection with its Affirmative Action Plan, the Massachusetts Institute of Technology guarantees equal opportunity in education to students of all racial and ethnic backgrounds.

1. Citizenship information*

Choose one option below

Non-U.S. Citizen/Non-U.S. Permanent Resident

1.1. Country of citizenship (if other than U.S.)*

Ukraine

1.2. Visa type (if applicable)

2. Are you Hispanic or Latino (including Spain)?

(U.S. citizens and Permanent Residents only)

No

3.

Regardless of your answer to the prior question, please check one or more of the following groups in which you consider yourself to be a member.

(U.S. citizens and Permanent Residents only)

I consider myself to belong to the following ethnic group(s) (check all that apply):

White (including Middle Eastern)

3.1. Which best describes your background?

Europe

Family Information

(* = required)

Please provide the requested information about your parents. If you're a member of a non-traditional family, please provide information about the persons whom you consider to be your mother and father, whether they are your biological parents, adoptive parents, or stepparents.

1. Parent 1's relationship to you

Mother, Father, Stepmother, Stepfather, etc.

Mother

2. Parent 1 name

First/Given name	Middle initial	Last/Family name
Marina		Pen'kova

3. Is parent 1 living?

Yes

4. Parent 1 occupation

Occupation	Employer
Researcher	National Therapy Institute of the National Academy of Science of Ukraine

5. Parent 1's country of birth

Kazakhstan

6. Parent 1's highest level of education?

Medical Doctor

7. Parent 1's educational history

Include the names of all colleges or universities attended and degree(s) received, including professional or graduate study.

University	Degree	Year
Kharkiv National Medical University	Bachelor	1992
Kharkiv National Medical University	Master	1994

8. Parent 2's relationship to you

Mother, Father, Stepmother, Stepfather, etc.

Father

9. Parent 2 name

First/Given name	Middle initial	Last/Family name
Ihor		Shumaiev

10. Is parent 2 living?

Yes

11. Parent 2 occupation

Occupation	Employer
Production line supervisor	Kharkiv Main Electrical Networks

12. Parent 2's country of birth

Kazakhstan

13. Parent 2's highest level of education?

Master's Degree

14. Parent 2's educational history

Include the names of all colleges or universities attended and degree(s) received, including professional or graduate study.

University	Degree	Year
Kazakhstan Chemstry & Technology University	Bachelor	1985
Kazakhstan Chemstry & Technology University	Master	1987

15. Parents' marital status

Married

16.

If your legal guardian is someone other than your parent, list name, address, relationship, and occupation.

17. What is the primary language spoken in your home?

Russian

Educational History

(* = required)

1. Secondary school (high school) name*

If you attended more than one, list the last one attended.

0000 - Kharkiv Physics & Mathematics Lyceum 27 of Kharkiv Municipal Council in Kharkiv Region - Kharkiv, Kharkiv region

1.1. Date entered*

09/01/2013

1.2. Date left*

05/31/2016

2. Have you attended more than one secondary school?*

Yes

2.1. List names of previous high schools and dates attended.

High School Name	Date Entered	Date Left
Kharkiv Comprehensive School 70	09/01/2005	05/31/2013

3. College, university, technical institute, or community college name*

If you have attended more than one, list the current or most recent attended.

0000 - Taras Shevchenko National University of Kyiv - Kyiv, Kyiv region

3.1. Date entered*

09/01/2016

3.2. Date left

(If applicable. Leave blank if still attending.)

3.3. Degree (if any)

4. Have you attended more than one college or university?*

No

5. Are you still attending school?*

No

5.1. Please explain what you have been doing since you left school.*

I have been involved in a variety of educational and extracurricular activities since I left school.

In July 2016 I was to take part in the International Olympiad in Physics (IPhO), which I had been craving for a long time. I was admitted to a short course of preparation to the experimental exam of the Olympiad. The course was held in Kyiv in the middle of June and lasted for only 4 days, however it was a remarkable period of my life. I was enjoying my time with my friends from the national team for IPhO. Not only we conducted shared experiments and sought a deeper understanding of the background of natural effects that we were observing, but also we walked around the city and played various games in the evenings. Our preparation course coincided with the qualification exams for the International Astronomy Olympiad, so I found even more friends among the astronomers.

After my preparation course I had several weeks to practice solving problems for IPhO. I wasn't alone in my desire, my friend and classmate Sasha was also preparing for the Olympiad. We inspired and helped each other with the physics problems, and during breaks we went cycling around the place we used to live.

At last, the time of the Olympiad came. It was an unforgettable week! I met my teammates again and made lots of friends all around the world. I spent a marvellous time with my mates in CERN, the heart of global physics. We were taken to Lichtenstein and made a photo with its Minister of Foreign Affairs! We even found time to cycle around Zurich! I felt completely happy at the end when I was awarded gold, and a bit sad that this was the last olympiad I took part in as a pupil.

When I returned home after the Olympiad, I was full of self-confidence. I realized that I could pass the first year exams at the university during fall and start attending the lectures and seminars as a 2nd year student. I was getting ready for these exams all August long, though my parents were not very happy with my intention to skip the 1st year of the university. All this built up an enormous psychological strain, and the only way to get rid of it

and to relax in a way was cycling. I had relatively much free time, so I cycled all around the city alone or with my friends. Thus, I managed to combine two of my most favorite activities: studying science and having outdoor fun.

From September I entered the Physics Department of Kyiv Taras Shevchenko university and passed all the 1st year exams with flying colors. Now I'm studying together with the sophomores. During the fall I was preparing for the TOEFL and SAT, and in January I passed the 3rd semester exams.

I'm looking forward to taking part in the upcoming National Olympiads and Young Physicist Tournaments as a jury member. To make a further contribution to the Olympiads and keep memories of my participation fresh, I give physics classes at my former school.

6.

Have you ever been dismissed, suspended, placed on probation, left voluntarily for an extended period of time, or incurred serious disciplinary action?

*

No

7.

After graduating from high school, have you been enrolled continuously (excluding summers) as a full-time student in college or university?

*

Yes

Essays

(* = required)

The required essays consist of four short-answer response questions (250 word limit). Remember that your essays are not a writing test. They're the place in the application where we look for your voice - who you are, what drives you, what's important to you, what makes you tick. Be honest, be open, be real - connect with us. That's all that matters.

1.

How does MIT align with your goals (e.g., academic, personal, career, extracurricular, etc.)? (200-250 words)

*

My main goal is to gain a deeper understanding of the beautiful phenomena surrounding us, and I'm sure MIT is the best place to study physics.

These are merely words, however I've already appreciated the usefulness of the MIT Open Courseware. I used these materials to prepare for the Olympiads and exams, and they helped me a lot! What I mostly like is explaining the content in connection with other topics and videos which reveal the phenomena in live action.

As I watched online, professors in MIT explain the material clearly and emphasize on crucial facts. If I have a trouble with understanding a concept by myself, I believe that the professor will find a minute to answer my

question.

I'm really passionate about chatting on science topics with mates that understand me and share my interest. I watched videos of MIT projects: one in robotics, and another one about Fermilab. I would love to enter such a project and make a contibution to the global science.

I like sharing my knowledge with others, and leading a physics class in a school would provide me a lot of experience and maybe even a job.

In addition, I was pleased when I found clubs for all kinds of sports that I like - chess, table tennis and cycling. I'm looking forward to playing with new partners and cycling around America.

No other university provides all of these features, and MIT does. Then why should I hesitate?

2.

Please discuss why you are considering transferring from your current college or university. (200-250 words)

*

I consider myself very motivated and aspired to self-improvement, and I have always tried to keep my skills and knowledge up-to-date.

In high school I was driven by the dream to become a winner of an international olympiad. I communicated a lot with my friend Taras. He is one year older, so it was a demanding task to tackle problems assigned to him. We cultivated an atmosphere of cooperation and rivalry which led us both to IPhO titles.

After my IPhO victories the olympiads were over for me as a contestant. Earlier I had wished to stay in Ukraine and continue contributing to Olympiads as a jury member. Anyhow, things have changed as time passed. I was motivated by the 1st place on the National Minor Academy of Sciences research competition, and I decided to focus on scientific research. In time I figured out MIT is the best, from all the choices I have had.

MIT is one of the leading universities in the field of research and technology. I'm convinced that there I will join a productive community of helpful professors and devoted peers, which will continue inspiring me to advance in cutting-edge branches of physics. Professional physicists' supervision and best resources of information will be available, which, combined with my passion of physics, will give birth to lots of innovative ideas.

Therefore I'm looking forward to entering the MIT community, the best surrounding possible in the nowadays world.

3.

At MIT, we bring people together to better the lives of others. MIT students work to improve to their communities in different ways, from tackling the world's biggest challenges to being a good friend. Describe one way in which you have contributed to your community, whether in your family, the classroom, your neighborhood, etc. (200-250 words)

*

I like physics at large, but my greatest passion is taking part in Physics Olympiads. I can't participate in the Olympiads as a student anymore, still I promote their popularity in my former school and in my country in

various ways.

My school tutor and mentor was inspired by my results in the Olympiads, and I convinced him to invite my other classmates to the preparation classes for IPhO in order to educate even more winners. As a result my classmate Sasha won a silver medal at IPhO, and now my another classmate Sergey is getting ready to take part in the forthcoming Olympiad. I regularly conduct lessons in my school by myself and share my knowledge and experience. I really like it and I'm proud that I may help future winners to reach their victories.

I've already made my humble contribution into science. I researched the Duboshinskii pendulum and found a new dependence between its parameters and its behavior. The paper was admitted by the Journal of Applied Physics, and I believe it will help physicists and engineers to design a device, for example an energy converter.

Also I decided to participate in the National Physics Olympiad and the Young Physicist Tournament as a jury member. I'll be helping the best tutors from all over Ukraine to evaluate and choose the students for the IPhO national team.

4.

Tell us about the most significant challenge you've faced or something that didn't go according to plan. How did you manage the situation? (200-250 words)

*

Physics has been my passion for a long time, but not for all of my life. Before I started taking part in the Olympiads, I had seen myself in future as a chess player rather than as a scientist. I used to play chess with my father, and being 11 years old, I won my first tournament.

Just before the National Olympiad in Physics I participated in a qualification tournament for the National Chess Championship, and here my failures began. I missed the opening ceremony and hardly managed to be in time for the game without receiving a penalty. I won that game, however I drawed the next game and then I lost 3 times in a row. I was very upset with my performance, and tried hard to calm down and show my best. I had 2 victories and 2 draws after that, and finally scored 4.5 of 9. Imagine how disappointed I was when I found that 5.5 had been required to qualify for the National Championship.

The decision to change the direction of my efforts was very challenging. I understood that this would destroy all my efforts devoted to chess, and this hurt me. Nevertheless, I managed to overcome my disappointment and worked hard for 2 weeks to prepare for the Physics Olympiad, and this resulted in my final victory. As any life challenge, this one was full of failures, though in my opinion failures are perfect incentives to improve yourself.

Activities & Employment

(* = required)

Please use our form, not a resume, to list your activities. There is only enough space in this section to list a few things, so please choose the activities that mean the most to you and tell us a bit about them. This will tell us more about you than any "laundry list" of everything you've ever done.

1. Activities

How do you currently spend time outside of your regularly scheduled classes? Briefly describe your activities in and out of school - hobbies, interests, sports, clubs, projects, etc. - in order of importance to you. Include the weekly time commitment (an estimate is fine), dates participated, and a brief description of your role.

Activity	Hours per week	Dates	Description
Table tennis	4	from Sep 2016	Player
Poker	2	from Sep 2016	Player

2. Summer Activities

List your most recent summer activity first. Include a brief description of the activity, dates of participation, and approximate hours per week.

Activity	Dates	Hours/week
Cycling	Apr-Aug, 2016	8-12
Experimental physics training	Jun 14-17, 2016	25, one week long

3. Employment (including summer)

List your most recent job first. Include your job title, employer name, dates of employment, and approximate number of hours per week.

4.

List any scholastic distinctions you have won in high school or college and indicate the level of distinction (school, regional, state, national, or international).

Distinction	Level
International Physics Olympiad 2016, gold	International
International Physics Olympiad 2015, silver	International

National Olympiad in Physics 2013-16, all 1st diploma	National
Regional Olympiads in physics, math, chemistry, programming, astronomy (14 altogether)	Regional
For Excellence in Learning, silver medal	Scholar
National Young Physicists Tournament 2015, 2016 (2nd and 1st team places)	National
Minor Academy of Science research contest, 1st diploma	National

Self-Reported Testing

(* = required)

We require the following tests: 1) the SAT (old or new) or the ACT; and 2) two SAT Subject Tests, one in Mathematics (Level 1 or Level 2) and one in Science (Physics, Chemistry, or Biology E/M). If your native language is not English, you may submit the TOEFL in place of the SAT or ACT.

Remember that your scores must also be sent to us from the testing agency; scores and grades you list here will not be considered official. Scores should be sent to SAT/TOEFL code 3514, ACT code 1858.

1. Reasoning test*

List the dates on which you have taken or will take the standardized tests, and indicate your scores. If you have taken multiple exams, report only the highest score and date of exam for each section.

TOEFL

1.1. TOEFL

Version (iBT, PBT)	Date (mm/dd/yyyy)	Score
iBT	12/17/2016	107

2. SAT Math Subject Tests*

Level 2

2.1. Math Level 2 results

Date (mm/dd/yyyy)	Score
11/04/2016	800

3. SAT Science Subject Test(s)*

Physics

3.1. Physics results

Date (mm/dd/yyyy)	Score
11/04/2016	800

Self-Reported Coursework

(* = required)

We receive many different transcripts from colleges and universities all over the world. In an attempt to gain a better understanding of your college studies and your preparation for MIT, we ask that you answer the following questions.

How you fill out this form does not make or break your application, so use your best judgment--we're just trying to get a clear picture of your academic preparation.

1.
List the date and score of any Advanced Placement, International Baccalaureate, or A-level or O-level exams you have taken.

2. Include a key to your school's grading system (for grades other than traditional A-F grading).

If there is anything else we should know about the grading system, include it here as well.

High school: 12-point grading system
10-12 A
7-9 B
5-6 C
4 D
3- E

University: 100-point grading system
90+ A
75-89 B

60-74 C
30-59 D
29- E

3.
Have you taken, will you take, or have you received credit for single and/or multivariable calculus?*

Yes

3.1. List your single and/or multivariable calculus classes.

Include the term, course number, course name, grade, and link to the course description or syllabus (if available).

Term/Year	Course Number	Course Title	Course Grade	Course Description
2014-16		Introduction to Calculus	10	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekeEkxM1hhZTh6RHM
2016-17		Mathematical Analysis	100	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekMzVxRlZVMnhUZ0U

3.2.
If you've taken math beyond calculus, such as linear algebra or differential equations, please list them here.

Include the term, course number, course name, grade, and link to the course description or syllabus (if available).

Term/Year	Course Number	Course Title	Course Grade	Course Description
2016		Analytic Geometry & Linear Algebra	100	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekXzAzcHNUTjNPdVk
2016-17		Vector & Tensor Analysis	97	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekX0hHdkhISG1ORFk

2016-17	Differential Equations	95	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekMHJxc3BaZ1lsOVE
2016-17	Complex Analysis	97	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekVU1ZYVZpYVVpWEk

4.

Have you taken, will you take, or have you received credit for calculus-based physics (specifically, a mechanics and/or electricity and magnetism course?)

*

Yes

4.1. List any calculus-based physics classes.

Include the term, course number, course name, grade, and link to the course description or syllabus (if available).

Term/Year	Course Number	Course Title	Course Grade	Course Description
2016		Mechanics	100	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekOTNaYTBrTzc1TXM
2016		Molecular Physics	100	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekZC1aazNXa05QTG8
2016-17		Classical Mechanics	99	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekckJIRUVmZjhZejg
2016-17		Electricity & Magnetism	100	https://drive.google.com/uc?export=download&id=0BzsSba0c6bekMTNTZ3V0RHEtMkE

5. Have you taken, will you take, or have you received credit for introductory biology?*

No

5.1. Additional comments

6. Have you taken, will you take, or have you received credit for introductory chemistry?*

No

6.1. Additional comments

7. Upload an unofficial copy of your college transcript.*

University transcript.pdf

Additional Information

(* = required)

1.

No application can meet the needs of every individual. If you think that additional information or material will give us a more thorough impression of you, please include it here.

I feel that I need to explain why I entered the 2nd year of university immediately after high school and what circumstances brought me to that decision.

Firstly, I've always liked challenging myself. My tutor used to explain me the material of the 11th grade when I was in the 8th. I hardly understood anything at that time, but just a year later, in the 9th grade, I solved the 11th grade problems flawlessly. At the end of the 9th grade I started practicing with the IPhO problems. In our country only 11-graders are admitted to the IPhO team, though that didn't make me hesitate for a moment. It was quite difficult at first, but a year later I entered the IPhO team as the absolute winner of the selection exams, being 1 year younger than all of my teammates. As experience has shown, it's fruitful to load me with excessively tough material and give me time for practice, so that I'd acquire all the support information and develop intuitive understanding of the topic by myself. Getting ready for the 1st year exams was a very demanding goal, after all I managed to achieve it: I passed all the exams with excellent grades.

In addition, I had many friends and acquaintances from the group that entered Taras Shevchenko University in 2015. I participated in the selection exams for IPhO and in the IPhO itself, and there I got in touch with 9 of my future close friends. Later I found out that 7 of them had entered the Physics department of Taras Shevchenko university. Next year the selection exams didn't bring as many friends into my life, and I dreamed to study with the previous group. That group had finished the 1st year when I was to enter the university. So, the only way to catch up with them was to pass the 1st year exams quickly and to join the group as a sophomore. I appreciate studying with people who I know well, and this was an incentive to do what I've done.

Also, I want to tell more about my hobbies.

The most beloved one is certainly cycling. My parents bought my first bike when I was three, and I cycled around the city at the age of 6. I practice this kind of sports in summer, and as it is too hot during the day, I prefer to go out in the evening. What is not common is that I prefer urban roads and avenues rather than calm and peaceful countryside. The city is so beautiful in the evening, and I have time to relax and think.

Another hobby that I developed in the early childhood is table tennis. I used to play with my parents, and after that with my peers, from the age of 8. I quickly gained gaming experience, and at the age of 10 I used to beat almost all of the locals. At that point I lost my interest, and started playing again with my groupmates only about 5 months ago.

Finally, I like practicing chess. During a period of my life I planned to become a professional chess player, and only physics managed to replace chess. Still, none of my groupmates knows how to play chess, and I have little possibility to practice (playing online isn't as much interesting). I still remember how the figures move, but my skills are not in the best condition as they used to be a couple of years ago.

2. Do you plan to apply for financial aid?

For clerical use only. Financial need has no bearing on admissions decisions. Checking this box allows Student Financial Services to assist you in completing your financial aid application.

Yes

Shumaiev, Oleksandr

61902142285

ATTACHMENTS

Resume/CV (optional)

cv.pdf

Shumaiev, Oleksandr 61902142285

REFERENCES

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Waived right to review

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Waived right to review

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Waived right to review

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