

Provisions of the “Yessenov Data Lab” Summer School Program of the Shakhmardan Yessenov Science and Education Foundation

1. General provisions

1.1. Yessenov Data Lab Summer School program (hereinafter referred to as the "Program") is a 5-week intensive training of Kazakhstan's young scientists in basic skills of volume data analysis for further application of knowledge in real practical work, as well as the development of their communication skills

1.2. The purpose of the program is to develop the skills of young scientists for working with large volumes of data focused on teaching the basics of mathematics, necessary for further independent development in this direction. It also implies the development of non-academic (communicative) skills and leadership qualities of young scientists.

1.3. In these Provisions, the term “sponsorship” is equivalent to a financial support provided to participants residing outside of Almaty. For the duration of the Program, the sponsorship covers a two-way domestic flight to Almaty, accommodation and daily meals (on ground or a cash equivalent of the listed expenses). Participation in the Program is free of charge for all winners of the Program. **Twenty-five (25) winners are selected annually amongst all competitors.** The number of winners is subject to the quantity and the quality of applications and can be increased or decreased.

1.4. The winners are selected in an open competition held at least once a year.

1.5. **The Program foresees a 5-week Data Science training from June 15, 2020 until July 17, 2020.** The language of training is Russian, with the occasional usage of technical English.

2. Participation requirements

2.1. In order to take part in the Program one has to be a citizen of the Republic of Kazakhstan (over 18), a student (undergraduate, graduate or Ph.D.) or practicing specialist.

2.2. Candidates must demonstrate high intellectual capacity, possess a wide range of professional skills, have commitment and be result-oriented, single-minded and flexible.

2.3. Candidates must demonstrate their active professional, scientific, and social activities, and the conformity of their professional skills with the following requirements:

Requirements to candidates:

- Strong analytical skills
- Basic knowledge of statistics and linear algebra
- The following is a plus:
 - Programming skills;
 - Knowledge of source control (git/svn/...), command line/ssh, testing, developer methodologies (Agile/spiral/...), cloud familiarity (AWS/Azure/...);
 - Certificates of successful completion of programming courses or a bachelor diploma in Science in CS or other tech discipline (math, physics, and engineering);
 - Upper intermediate English (6.5 IELTS or 90 TOEFL iBT or other way to show fluency).

3. Competition stages

3.1. The competition has three (3) rounds. Applicants that demonstrated the best skills are selected upon the completion of each round. The competition is announced on the foundation's website yessenovfoundation.org and its social networks.

3.2. **First round: applications' submission and assessment.**

Candidates submit their applications **from 24 February to 15 March 2020.**

The following documents must be included in the application:

1. A copy of the candidate's national ID;
2. A copy of the candidate's transcript (all completed semesters) and a copy of Bachelor degree diploma with transcript (for graduates and specialists);
3. An essay on the following topic “I want to study data analysis to...” (at least 7 sentences and not more than 2 pages);
4. CV;
5. A portfolio indicating the candidate's achievements in research and/or expressed interests in a particular scientific field with respective evidence:

- own scientific articles, materials, results of any research, etc.;
- 6. Certificate demonstrating the candidate's good command of the English language (if any).

An application with the entire package of documents must be submitted by filling out an online application form on the Foundation's website - yessenovfoundation.org

A candidate's submission of documents indicates the candidate compliance to the Program objectives and confirms his/her acceptance of and readiness to comply with the conditions of the competition described herein.

Candidates can submit their documents in Kazakh, English or Russian.

All applications are registered by an employee of the foundation, and a personal registration number is assigned to each candidate. Upon the verification of the completeness and the conformity of a candidate's application to the formal criteria of the Program, a decision is rendered on whether the candidate is accepted or rejected. An acceptance/rejection notice is solely sent to the email address specified in a candidate's application form. Russian is the Program's working language.

All duly submitted applications are reviewed and assessed by the foundation's employees and independent experts **in the period of 16-30 March 2020**.

The list of the first round's successful candidates is posted on the foundation's website. No more than 60 candidates are selected for the second round.

3.3. **Second round: examination**

1. Mathematics and logic testing
The test is composed of 30 question (60 minutes), and must be completed online;
2. A Data Science test on the Kaggle platform.
A simple regression task will be given, and the participants will be ranked by the root-mean-square error;
3. A psychometric test.

The second round is held on **31 March to 15 April 2020**. The examination is intended to assess each candidate's analytical skills.

The examination requires **basic knowledge** in:

1. Matrixes, simple equations
2. Columns (math)
3. Linear regression, mean values, medians
4. Producing function graphs
5. Variables, cycles, conditions (in any programming language)
6. Massifs, sorting
7. Algorithms on columns (programming)
8. Basic knowledge of statistics and probability theory – probability distribution, random value, math expectation, covariance, normal distribution

The list of successful second round candidates is posted on the foundation's website. No more than 40 candidates are selected for the third round.

3.4 **Third round: interviews**

The third round is held **on 16-22 April 2020**.

The participants of the third round will be invited for a face-to-face or online interview with the experts.

The following competencies are considered during the interview:

- Analytical skills;
- Professional skills;
- Programming skills and experience (if possible);
- Personal qualities;
- Other.

The following qualities are also considered in the selection:

- high intellectual capacity;
- eagerness to continually develop their professional skills;
- valuable contribution to social life, etc.

The Foundation takes a final decision before 30 April 2020. The list of winners of the competition is published on the Foundation's website. The results of the third round are reported to the winners by e-mail.

3.5 A council of experts is formed to select the winners of the competition, which will select candidates on the base of the results of all three competitive rounds described above. The decision of the experts is submitted to be reviewed by the Board of Trustees of the Foundation.

3.6 The decision of the Board of Trustees is approved by the Foundation in the form of an officially certified list of the Program's winners.

4 Sponsorship payment procedure

4.1. The sponsorship is awarded to **twenty-five (25) winners** shortlisted in the course of the competition. The number of winners is subject to the quantity and the quality of the applications and can be increased or decreased.

4.2. Following the results of the competition, the winners will undertake a 5-week long training on a gratuitous basis at the Yessenov Data Lab summer school **from 15 June to 17 July 2020**. The dates of the training may change, without exceeding 14 calendar days. The language of training is Russian with occasional usage of technical English.

4.3 For the participant residing outside of Almaty, the Foundation will cover a two-way domestic flight to Almaty, accommodation and daily meals (on ground or a cash equivalent of the listed expenses) for the period of the Program. The foundation reserves the right of final say in the choice of accommodation for the winners receiving the sponsorship.

4.4 A sponsorship agreement is signed between the Foundation and the Program winner before the start of the "Yessenov Data Lab" summer school training. The agreement may also provide for other arrangements made between the Program winner and the Foundation.

4.5 The Foundation may provide other privileges upon further agreement, including online training, involvement in conferences, business meetings, etc.

5. Additional information.

Should there be any additional questions, please refer to the following contacts:

Questions	Contact person	
Competition: <ul style="list-style-type: none"> • Round one: applications • Round two: exam venues • Round three: interviews Sponsorship to the non-Almaty resident candidates.	Toktar Yeskendiroy	+7 (727) 346-92-88 toktar.y@yessenovfoundation.org
Round two: exam content.	Toktar Yeskendiroy	+7 (727) 346-92-88 toktar.y@yessenovfoundation.org