

ONLINE

WINTER CAMP

in Competitive Programming **2022**

WHEN?

January 10 – 21, 2022

ECTS?

Yes! 3 ECTS + ITMO Official Certificate

FEES?

22,000 RUB (~ 245€)

APPLICATION DEADLINE?

December 15, 2021

APPLICATION DOCUMENTS?

- Copy of your current passport
- CV
- send to Ms. Ekaterina Rassolenko at e.rassolenko@itmo.ru

REQUIREMENTS?

- Intermediate programming language proficiency (at least 1 language)
- English B1 and higher

REQUIRED PROGRAMS?

- Codeforces, Zoom, IDE for Python, C++ or Java



WINTER CAMP ONLINE
in Competitive Programming 2022
SCHEDULE
January 10 – 21, 2022

JANUARY 10 MONDAY	Sorting and Binary Search	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 11 TUESDAY	Dynamic Programming	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 12 WEDNESDAY	Graphs, Depth First Search, Connected Components and Strongly Connected Components	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 13 THURSDAY	Graphs, Shortest Paths, BFS, Dijkstra Algorithms	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 14 FRIDAY	Strings, Prefix-function, Z-function, Hashing	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 17 MONDAY	Segment Tree	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 18 TUESDAY	RMQ, LCA, Sparse Table	11:00 – 13:00	Lecture
		13:00 – 15:00	Practice
JANUARY 19 WEDNESDAY	One topic will be chosen in accordance with students' preferences and skills:	11:00 – 13:00	Lecture
	<ul style="list-style-type: none"> ■ Geometry ■ Dynamic Programming 2 ■ Minimum Spanning 	13:00 – 15:00	Practice
JANUARY 20 THURSDAY	One topic will be chosen in accordance with students' preferences and skills:	11:00 – 13:00	Lecture
	<ul style="list-style-type: none"> ■ Game Theory, Grundy Theorem, Retroactive Analysis of Cyclic Graphs ■ Fast Fourier Transform ■ Suffix Array 	13:00 – 15:00	Practice
JANUARY 21 FRIDAY	One topic will be chosen in accordance with students' preferences and skills:	11:00 – 13:00	Lecture
	<ul style="list-style-type: none"> ■ Last day contest ■ Maximum Flow Problem ■ NP-completeness and Backtracking 	13:00 – 15:00	Practice

All classes are scheduled according to Moscow time (GMT +3).