Division 1

-Taught by Pranjal Shankhdhar and Mayank Khetan
ACM ICPC World Finalists 2017-18

Pre Requisites -

Knowledge of all Standard Algorithms taught in Algorithms - 1 Course and Number theory basics.

Selection Criteria -

1700+ on Codeforces or 2200+ on CodeChef assures a fixed seat. Rest of the limited seats will be filled by giving priority to Codeforces rating and number of Attempts left for ICPC.

We will keep a watch on the Rank lists of this Month's Codechef Contests, i.e. Long, Cook-Off and Lunchtime. Exceptions can be made for Brilliant Performers. We also take Consistency of participation as a parameter.

Syllabus -

* Mobius Inversion
* Persistent Data Structures
* Centroid Decomposition
* Fast Fourier Transforms
* Square Root Decomposition.
* Gaussian Elimination
* Dynamic Programming Optimizations
* Advanced String algorithms (Tries, KMP, Aho-Corasik, Suffix arrays, Suffix trees)
* Flows (Max-Flow, Min Cost Max Flow)
* HLD, Euler Tour.
* Few Advanced Applications of topics in Div2.
* Advanced Contest problems and Tricks

and many more topics as time permits.