

# Welcome to Intermediate Computer Team!

ICT Officers

September 2017

## 1 Introduction

Welcome to Intermediate Computer Team, one of the coolest computer science clubs at TJ! We meet every Friday B block to learn algorithms and data structures and improve our problem solving skills via programming. Our focus is on the American Computer Science League (ACSL) and USA Computing Olympiad (USACO), but we also compute in other competitions. We look forward to having a great, fun year as a team!

- Sponsor: Ms. Kim
- Captain: George Tang
- Co-Captains: Neal Bayya, Anna Xu, Charlie Gunn
- Teaching Coordinators: Elizabeth Ling, Caroline Jin
- Webmaster: Evan Shi

If you have questions about ICT, computer science, or school and life in general, feel free to contact us or any other returning member.

## 2 Schedule

ICT usually meets Friday B block (consider joining SCT, which meets A block). A typical block consists of two lectures on competitive programming topics. Students can choose which lecture to attend. ACSL material will be distributed and problem sets posted online. Every few meetings, we will have an in-house contest, which will give members a chance to practice the material taught.

## 3 Contests

### 3.1 In-House Contests

In-House Contests will be held every 4 meetings or so. Members will form groups of 3 (stacked teams will be broken) and be given the whole block to solve 3 problems using a designated computer. Once time is up, the test data will be revealed (usually three cases for each program), and participants will enter the data and see if their program output matches the solution. For every correct case, the teams gain a point. Prizes will be given for the top scoring team.

### 3.2 ACSL

Every year, five students are selected through a series of four contests to go to ACSL All-Stars. The contests will have a written round with 5 questions given in 30 min, as well as a 3-day take-home programming question that will be submitted to Ms. Kim to grade. Material and practice problems will be distributed and posted online, and if you have any questions regarding them, feel free to contact us.

### 3.3 USACO

USACO, the most popular and prestigious computing contest in the US, is administered online through four contests in December, January, February, and ending with an US Open in March. There are four divisions: Bronze, Silver, Gold, and Platinum. Everyone starts out in the Bronze Division and top competitors are selected for USACO camp. We highly recommend everyone to do this as much of our material overlaps with it, and one can get a lot out of the contests.

### 3.4 Travel/Additional Contests

We also participate in a variety of other contests, which are held in the spring. Each contest is formatted ACM-style, with the winners solving the most problems and ties broken by time. Teams of 3 to 4 are selected to participate at: UVA, VCU, and Codequest. Additionally, every early December on TJ campus, VT hosts an online programming contest. You may form up to teams of three.

## 4 Resources

### 4.1 Contact

Make sure to sign up for our mailing list and join our Facebook group! We will send out weekly announcements and updates. If you have any questions, feel free to contact us.

- Website: <https://activities.tjhsst.edu/ict/>
- Email: [tjhsstictcaptains@gmail.com](mailto:tjhsstictcaptains@gmail.com)
- Facebook Group: <https://www.facebook.com/groups/tjict1516/>

### 4.2 Problem Archives

- USACO Training Pages
- USACO Past Contests Archives (Effectively learn through explanations)
- Codeforces
- Online Judges (UVA, Kattis, CodeChef)

### 4.3 Competitive Programming Material

- [usaco.org](http://usaco.org)
- Wikipedia
- [geeksforgeeks.org](http://geeksforgeeks.org)
- *Competitive Programming* by Steve and Felix Hamlin
- *Algorithms* by Sedgewick and Wayne