



# C++ - USACO Silver

Silver level class is rigorous, intensive and specifically designed to target USACO competition, and focuses on problem solving, algorithms and data structures, and consistently delivers more advanced topics and contents. For students who wants to continue pursue USACO path, we strongly suggest taking our Bronze courses first to have solid programming skill before starting USACO competition route

## Prerequisite

- Finish our **Bronze courses, Silver Core course**.
- **OR**, Intermediate Programming level. Students **passed USACO Bronze level, be comfortable writing code in C++ using recursive, binary search, BFS , and enjoy logical thinking and problem solving**
- **OR**, take our entry test by emailing [usacocoach2018@gmail.com](mailto:usacocoach2018@gmail.com)
- Pre-algebra level math is required

## Course Description

- **Silver Core Course** is designed to focus on learning basic Algorithms. Provide intro level algorithm problem solving skill. Class time is 90 minutes/lesson
- **Silver Practice Course** is designed to focus on most challenging USACO contest questions and provide best solution while learning algorithm. Class time is 90 minutes /lesson
- **Silver Mock Course** is designed to focus on most challenging USACO contest questions and provide best solution while learning algorithm. Class time is 90 minutes /lesson
- **Silver Enhance Course** is designed to focus on most challenging USACO contest questions and provide best solution while learning algorithm. Class time is 90 minutes /lesson

## Silver Practice Course Syllabus

1. Running Sum
2. Data Structure
3. String
4. Matrix Operation
5. Control Array
6. Simulation
7. BFS-DFS
8. FloodFill
9. Graph
10. Dynamic Programming

## Course Details

- Use ZOOM for online video platform
- Class homework and video will be shared through google account. Student Gmail account is required
- Homework will be emailed to students after the lesson. Homework is required to submit through USACO official website [www.usaco.org](http://www.usaco.org)