

Competitive Coding Fall Class

- **Course Title:** Competitive Coding Fall Class
- **Tuition:** Free
- **Credit Hours:** Zero
- **Schedule:** Saturday 2 pm to 4 pm - Intro Class
and 4 pm to 6 pm - advanced training
Sep 7, 2019 - Dec 5, 2019 most weeks
- **Course Instructor/Coordinator:** Mr. Gregory LaKowski or invited faculty
- **Students Qualification:**
CS 3358 with B or A , CS 2308 with A;
CS 2308 with A;
Graduate students passing CS 5301 or
programming exam competent in C++.
Any student that thinks they can hang with us
and are interested in competitive coding are
invited to try it out!
- **Interested Students and Registration**
Contact:
Greg Lakowski, greg@txstate.edu
Office: Comal 210B
- **Course Classroom:** Comal 201

- **Course Methodology:**

Each session I will conduct a lecture covering a particular topic. We will look at a problem together that uses this topic in its solution. We will then break into teams and code a minimum of one other problem and review our attacks, problems, and solutions. As the course continues on, we will develop and start to use only a specific set of "cheat sheets" versus the Internet. There will be additional coding problems assigned every session for completion the following week.

- Introduction to competitive coding
- Coding practices and standards for this class
- C++ Data Structures and Libraries
- More data structures
- Introduction to Algorithms
- Problem Solving Paradigms
- Recursion
- Greedy Algorithms
- Dynamic Programming
- Binary Trees
- Unweighted Graphs
- Graphs
- Mathematics
- Strings and Text algorithms
- Network Flow
- Computational Geometry