

FIU HSPC Coach's Training

Agenda

- Introductions
- What is HSPC?
- Going over some HSPC-style questions
- Practicing HSPC-style questions (break-out rooms)
- Contest platform overview (DOMjudge)
- Team workstations' overview
- Contest scoring
- Preparing your students
 - How will you build your team?
 - Practice strategies
 - South Florida Competitive Coding league
- Q&A

Introductions

- Dr. Giri Narasimhan, Director
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- Nimmi Arunachalam, Co-Director
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- Andre Chmielewski, Computer Science Teacher
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- Gian Peña, Technical Lead
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- Monica Barbosa, Student Program Assistant
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Coaches Introductions

- We just go around and give short introductions
 - Is this the first contest your school participates in?
 - How often do you meet with your teams (if at all)?
 - What programming level are your students in?

Location and Registration

- Date: Saturday, February 7, 2026, 8:00 am to 6:00 P.M.
- Location: Parking Garage 6 - Tech Station, FIU Maidique Campus, SW 8th Street, Miami, FL
 - <https://goo.gl/maps/jQJECPCbnYkeArXE6>
- Registration Link:
- For more details, contact us at: narunach@fiu.edu gipena@fiu.edu

HSPC 2026 Agenda

Time	Description
8:30 AM – 9:15 AM	Registration
9:15 AM – 10:45 AM	Welcome and Practice Session
10:45 AM – 12:30 PM	Lunch
12:30 PM – 5:00 PM	Programming Competition + Coaches' Hangout
5:00 PM – 6:00 PM	Judging & Award Ceremony

2026 FIU High School Competition

- Hosted by the Academy for CS Education at FIU
- Director: Dr. Giri Narasimhan
- Since 2005, except during the pandemic.
- Free for all teams

2026 FIU High School Competition

- Multiple teams from a school BUT all teams in SAME division
- At least one faculty coach from each school must attend competition
- First 10 schools guaranteed space for 3 teams
- After registration deadline, teams registered before deadline will be admitted on a rotating basis, with one team per school during each round.

Contest Format

- Competition Format Duration:
- 4 hours Teams of 3 students, sharing ONE computer
- Between 10-12 problems (in no particular order)
- Code is submitted and automatically judged
- Languages allowed: C++, C, Java, Python
- There are two divisions, each receive the same problemset but are ranked on different leaderboards
- Rules
 - No electronic devices allowed
 - Bring your own cheat sheet(s)
 - No size restrictions

Permitted Languages

- As previously mentioned, HSPC supports four languages
 - C++ (gcc)
 - C (gcc)
 - Java
 - Python3
- Students are free to choose any language to solve any problem
- This means they are not confined to one language. They may use several throughout the contest!

Example Question One

- On a single line, you are given somebody's name. Display this person's name with a hello message.
- Sample test case 1
 - Input: Gian
 - Output: Hello, Gian!
- Sample test case 2
 - Input: John Doe
 - Output: Hello, John Doe!
- How would we do this in pseudocode?
- In real code? <https://ide.usaco.guide/>

Example Question Two

- On a single line, you are given a list of integers, each separated by a single space. Evaluate and display their sum.
- Sample test case 1
 - Input: 1 2 3
 - Output: 6
- Sample test case 2
 - Input: 1 1 1 1 9 1
 - Output: 14
- Think you can work through another one on your own?

Example Question Three (DIY!)

- On a single line, you are given a list of integers, each separated by a single space. Sort these integers in increasing order by their values, and then display the list of integers in the same format it was given.
- Sample test case 1
 - Input: 9 6 7 3
 - Output: 3 6 7 9
- Sample test case 2
 - Input: 1 2 3 4
 - Output: 1 2 3 4
- Hold onto your solutions once you finish the problem, we'll be using them in a moment!

Contest Platform

- Once we have our solutions, we need to submit them for “judging.”
- How do we do this? And where?
- DOMjudge will be our contest environment for HSPC 2026.
- It handles submissions, clarifications, leaderboards/scoring (we’ll talk about scoring later)

Team Workstations

- One computer to a team
- Each computer is running ubuntu (with small modifications)
- Teams will only be permitted to visit the contest site (all other web traffic will be blocked)
- There are several commands that may be useful to students
 - `cat <file>` - display file contents
 - `printfile <file>` - sends a print job to one of our printers (students are strongly encouraged to leverage this, given that only one student is able to use the computer at a time)

How do I run my program?

Although there are IDEs and text editors on your workstations (JetBrains suite + VSCode), you may run into issues running your code inside of those environments. In such cases, you will need to compile and/or run your programs on the terminal. Most of these languages require two commands: one to compile your program, and one to then run your program (Python is the exception here). To run your program in C++, do:

```
$ g++ program.cpp  
$ ./a.out
```

Similarly, for C, do:

```
$ gcc program.c  
$ ./a.out
```

For **Java**:

```
$ javac program.java  
$ java program
```

For **Python**:

```
$ python program.py
```

Contest Scoring

- First use number of problems solved (higher is better), then penalty points (lower is better).
- In the (rare) event that there is still a tie, teams share a placement. (for example, there may be two 2nd place participants, and the next highest team will be in 4th place)
- Penalty points are awarded for every minute since contest start
 - One correct submission to a problem X minutes into the contest will add X penalty points to your team's penalty points
 - If there were incorrect submissions before this, each incorrect submission will add an additional 20 penalty points (except compilation errors)
- A scoreboard you may reference can be found [here](#)

How do I prepare my students?

- For topic-based practice, students are encouraged to look at the usaco guide: <https://usaco.guide/>
 - The most relevant sections for FIU HSPC are bronze and silver.
- There are many online judges that students can submit problems to. All problems work in exactly the same way as ours (IO, time limits, other problem constraints)
 - Kattis: <https://open.kattis.com/>
 - Codeforces: <https://codeforces.com/>
 - CSES: <https://cses.fi/problemset/>
 - Vjudge: <https://vjudge.net/>
 - DMOJ: <https://dmoj.ca/> (Canada)
 - AtCoder: <https://atcoder.jp/> (Japan)
 - USACO: <https://usaco.org/> (USA)

Discuss!

- In breakout rooms, discuss with other teachers any ideas you may have for HSPC preparation for your students.
- Once you wrap up in the breakout rooms, share your ideas with everyone!

Practice strategies for students

- Importance of IO cannot be overstated
 - *Every single problem* at HSPC uses it!!
- Vjudge lets you run mock contests; consider organizing one (or let your students organize one!)
- FIU also holds mock contests every saturday. You can find a list of our contests (past, present and future) [here](#)
- Past FIU Lectures from Dr. Giri: <https://www.youtube.com/@gdscfiu654>
- Academy website (past HSPC problems + 2025 solutions): <https://academy.cis.fiu.edu/hspc-competitions/>

Feedback Survey

https://fiu.qualtrics.com/jfe/form/SV_3DAJngE9beof8F0



QA

- Any questions, concerns, comments?

