

# MICS Programming Contest

## General Information

Teams of three students share a single computer and compete against other teams to solve interesting and challenging programming problems. Teams are encouraged to bring textbooks and other non-electronic materials as resources. The top three teams will be recognized at the Saturday lunch banquet (including cash awards).

## MICS 2012 Student Programming Contest Rules

The programming contest will be three hours in duration. Starting as close to 7 PM on Friday, April 13 as possible.

The team correctly solving the most problems within the three hours will be declared the winner. In the event that more than one team solves the same number of problems, the team solving them in the least total time will be declared the winner.

Each incorrect submission results in a 20 minute time penalty, so it is important that teams minimize incorrect submissions.

During the contest, the network must only be used to submit contest problems or questions and get responses from the contest officials.

Teams will not be allowed to use any electronic devices, including (but not limited to) calculators, PDAs, cellular phones, laptops, and mp3/tape players. Teams may not bring CDs, DVDs, USB flash drives, or any other form of digital media. **However, each team should bring at least one "empty" USB flash drive in case the PC<sup>2</sup> judging software fails.**

Teams may bring textbooks and paper documents. Teams may also use any documentation that has been installed as part of the contest machine.

Each team will be assigned an area that includes a single computer and three chairs. Unfortunately, that will typically be a row in a computer lab, or in a classroom with a laptop provided

All programs must read all input from an input file and write all output to "standard output". For each problem, your submission must consist of a single source file using either **Java, C, C++, or Python (version 2.7)** as the programming languages.

Window 7 or Linux (Ubuntu 10.04) operating systems is available.

Under Windows, the simple editors NotePad, NotePad++, WordPad are available with command-line compiling (gcc, g++, and javac), but following computing environments are also available: Eclipse, jGRASP for Java, Visual Studio and Bloodshed Dev-C++ for C and C++, and IDLE for Python. API documentation for Java (JavaDoc HTML) and C++ (MSDN Library) will also be installed.

Under Linux, the simple editors emacs, gedit, nano, vi are available with command-line compiling (gcc, g++, and javac), but following computing environments are also available: Eclipse for Java. API documentation for Java (JavaDoc HTML)

If programming in Java, you should not use "user-created" packages. The submitted code must compile in the default standard packages.

If programming in C or C++ using an IDE, you should use only standard C or C++ without IDE specific features (templates, #includes, etc.). In Windows Visual Studio start with a Console Application project

template and select Application Setting of Empty Project (i.e., no Windows heading includes).