

## Waiving CS161

- To waive CS161, students must be fluent in writing complete programs in a high-level programming language using data types, variables, conditionals (if statements), logical operations (boolean logic), loop(s), and functions.
- At the end of each term, sessions will be available.
- Scan the QR code to register for a session  
<https://forms.gle/BAHjKZfqFVRTUWq77>
- These are remote unless otherwise requested.
- During the session, you will be demonstrating preparedness in the aforementioned constructs in the high-level language and programming environment that you are acquainted with.
- The programming is performed in a closed book, closed notes environment.



## Being Ready for CS162

To enter CS162, it is essential that you already know how to program. You need to be fluent with these basic concepts: how programs are structured, know how to use constructs to conditionally execute one set of code over another, how to repeat code multiple times, and be able to formulate complete programs. This information is covered in PSU's CS161 course.

In summary, here are a few skills you should be fluent in prior to taking CS162:

1. You should already understand concepts such as data types, variables, conditionals, loops, and functions.
2. You should be able to design and implement, on your own, a complete program from a specification and decide how to use functions. (Arrays or Lists are also important.)
3. You should be able to answer the following questions with ease:
  - (a) Write a conditional expression to determine if an age is between 13 and 21
  - (b) Using a loop, sum all of the whole numbers stored in an array or list (assume there are “length” numbers stored in the array)
  - (c) Create a function that finds the largest number in an array or list. Use arguments and returned values in your solution.
  - (d) Create a function that will compare two names and display them in predetermined order
  - (e) Create a complete program from scratch