

CS 4100, Fall 2019 Review for Midterm Exam

The following is meant to provide guidance about the types of questions that are likely to appear on the midterm, however it is not meant to be an exclusive list.

We have studied three programming languages:

- Pseudo-Code
- FORTRAN
- Algo-60

Know the read-execute cycle of an interpreter and the principle phases of compilation.

The goals of the developers of each of the languages we studied.

State and give examples of violation and compliance for the following principles:

- Abstraction
- Automation
- Defense in Depth
- Impossible Error
- Orthogonality
- Portability
- Regularity
- Security
- Structure
- Syntactic Consistency
- Zero-One-Infinity

Given a segment of code, be able to:

- Draw a contour diagram
- Give the values of variables given various methods of passing parameters

Be able to explain why Algol's **for** loop has been called Baroque.

Be able to explain and give an example of an overworked data type.

Be able to discuss, in an essay format, the following concepts as applied to the three languages above:

- Aliasing
- Parameter passing
- Sharing data that needs to be accessed by more than one subroutine