

Final Exam is covering Chapter 7-14

Expressions

Operator

Overloaded Operator does more than one thing.

Readability issues which further cause reliability issues.

Type conversions - Limits the kind of data that can be stored.

Taking the values and changing it to a different type.

Widening or Narrowing Types

Assignment Statement - Binding a value to a variable.

Short-circuit Evaluation - Already know the outcome

Selection Statement -

Two way and Multiway Statement

Iterative Statement - Execute statement multiple times.

Logic-controlled loop (Do-while)

Counter-controlled loop (For loop) - Max number of iterations

Use counter-controlled loop

What's unconditional Branching? - Goto statement

Unconditional Statements - Try to reduce in structured programming

We use loops in structured programming / Branching statements & Subprograms

We try to drastically reduce the use of goto statement.
We have subprograms - Process set of instructions multiple times from different locations.

Put Activation Stack on the top.

Nesting our subprograms - Return the call to the original program.
Pass any parameters, Pass the return address to the called,
Transfer control to the called, Save execution

Local Variable	↑ Stack Top
Parameters	
Dynamic Link	
Return Address	

Data Abstraction

Name / Protocol / Anything to be passed must be known prior.

Hides the hidden complexity in Process Abstraction.
Abstract Types build unique datatype which mean something to our organization.

Example of Abstract type - Include Files (Headers)

Object Oriented

Abstract Type

Inheritance

Polymorphism

} must support
to be OOP

Inheritance

Makes code reliable. Changes are to be made in one class and they are inherited.