

# NOTE

## Data Structure and Algorithm DSA

Credit = 3 Theory = 2 , Practice =1

Duration = 45 hours

## Requirement

- Programming language skill (C++)

Lv1. If it work don't touch it Lv2. Why it works Lv3. Optimize it !

## What you will get

- design , analyze , implement different of algorithm
- data structres (Array, Linkedlist , queue, stack , tree, graphs )
- Learn Problem-solving skill in coding

Program = Data Structure + Algorithm

## What to reviews

- Basic C++ ( Variable, Composite types , ... )
- Pointer and Reference
  - What
  - Function (passed by reference vs value )
- ControlFlow Statements
  - loop: for , while ,do while , ..(break , continue)
  - conditional = If , else , switch case ...
- Funtions
  - recursive functions
- Class and Object
  - Class : blueprint
  - Object : instance of a class
- Structure
  - **struct**:
- Arrays
  - one dimensional array
  - iteration , search , sorts , ...
- Operators
  - symbol,keyword used perform operation or calculated
- OOP ( a little bit )

---

## Evaluation method

1. Attendance = 10% ( Present > 50% )
2. Assignment = 20% ( Homework , Classroom , Presentation )

3. Midterm = 20%

4. Final Exams ( or Final Project ) = 50%

Take good note ( Obsidian ) more practice

---

## References