

DSA

Data Structure and Algorithm

Data Structure + Algorithm = Program

Total : 45 hours Credit: 3

Requirement

- C++ Programming skills

Stuff to reviews

- `static` keywords
- **Pointers,Reference**
 - Basic Use
 - How to use it with functions (pass by reference and value)
- **Functions:**
 - Built-in vs User-Defined (4 types)
- **Class and Object**
 - OOP
 - How to create class , create object
- **Structure**
 - `struct`
 - access modifiers (private, public , protected)
 - What is composite type in struct
 - How to create struct
- **Control Flow Statement**
 - Loop (for , while , do while)
 - Conditional Statement vs Decision making statement
- **Operators** : symbol or keyword used to perform specific operations
 - Arithmetic operators
 - Relational operators || Conditional Operators
 - Assignment ...

Method Evaluation

1. Attendance **10%**

2. Assignments (Homework , Classwork , Presentation) **20%**
3. Midterm **20%**
4. Final Project or Final Exams = **50%**

around **3 presentation** topics (slide, present (khmer))

- How to write code
- How to make code work
- Optimization
- Cheatsheet

Resources

1. <https://www.programiz.com/dsa/linked-list>
2. <https://www.programiz.com/dsa/trees>
3. <https://www.geeksforgeeks.org/dsa/linked-list-data-structure/>