

# **CT177H - Data Structures**

Lâm Hoài Bảo - FSE - CICT Trương Minh Thái - FSE - CICT

www.ctu.edu.vn 🚄

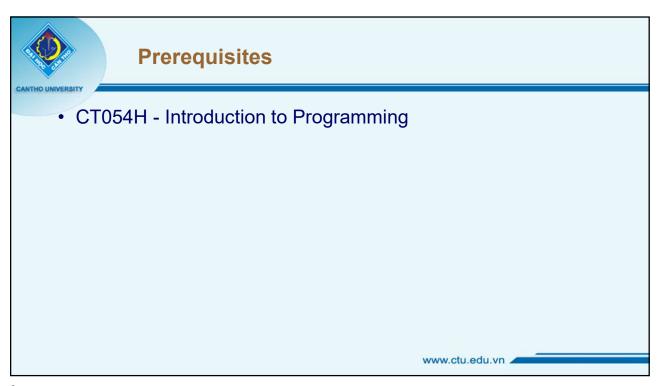
1

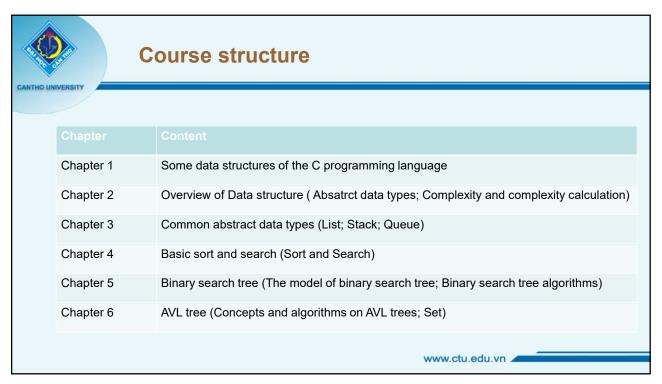


# **Objectives**

- Understand the models of abstract data types implemented by data structures and evaluate the performance of these data structures
- Apply data structures and basic sorting algorithms to real world problems
  - Model problems using appropriate data structures
  - Write codes to solve practical problems using suitable data structures
- Have a background to use standard libraries in different programming languages
- Be conscious of roles of the data structures in solving realworld problems.

www.ctu.edu.vn







### References

- Cormen, Thomas, Charles Leiserson, Ronald Rivest, and Clifford Stein. Introduction to Algorithms. 3rd ed. MIT Press, 2009. ISBM: 9780262033848
- Adam Drozdek, Data structures and Algorithms Analysis in C++ 4th Edition, Cengage Learning, 2012
- Gayle Laakmann McDowell, Cracking the coding interview. 6th ed. CareerCup, 2016
- Narasimha Karumanchi, Data Structures And Algorithms Made Easy, CareerMonk Publications, 2017

www.ctu.edu.vn

5



# **Teaching methods**

Lecture, computer lab, exercises, discussion

www.ctu.edu.vn



### **Duties of student**

Students have to do the following duties:

- Attend at least 80% of theory classes.
- Participate 100% of practice hours and report results.
- · Attend mid-semester test.
- · Attend the final exam.
- Perform actively self-study hours.

www.ctu.edu.vn

7



#### **Assessment**

UNIVERSITY

Midterm: 30%

Final:

Practical exam: 50%

■ Theory exam: 20%

www.ctu.edu.vn

