INTRODUCTION

Lecture notes of the course "*Programming Techniques*"

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Introduction

- Common programming techniques
- Implementation in C programming language
- Advanced course in C programming
- Prepration for the course “Data structure and algorithms”

Organization

- 2 credits: 20 + 10 hours
- 1 lecture every two weeks
- 1 practice session per week
  - Computer labs: A, B, C
  - Wednesday: K56 A2: 13h00-14h50; K56 A3: 15h00-16h50
  - Assistant instructors:
    - Ngô Văn Chí <*chingovan@gmail.com*>
    - Ngô Thế Quyền <*ngoquyenbg@gmail.com*>
    - Nguyễn Thị Tâm <*nguyenthitam.hus@gmail.com*>
  - Tools: Eclipse, GNU C/C++ compiler, MS Windows/GNU Linux
- Evaluation:
  - Course participation: 15%
  - Midterm test: 25%
  - Final test: 60%

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Website

- Lecture notes, assignments, exercises are available online at

  `http://mim.hus.vnu.edu.vn/courses`

- Login account:
  - Username: **k56a2a3**
  - Password: **k56a2a3**

Syllabus

- **Techniques**: modular programming, control flow, input/output, pointer and memory addressing, dynamic memory allocation
- **Data structures**: strings, arrays, lists, stacks, queues, graph, trees
- **Algorithms**: searching, sorting, k-ary string generation, divide and conquer, backtracking, dynamic programming

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