

# Programming 2

## Module Introduction

# Teacher responsible for the course

- Trần Thành Nam
- Email: [namtt@hanu.edu.vn](mailto:namtt@hanu.edu.vn)
- Đặng Đình Quân
- Email: [quandd@hanu.edu.vn](mailto:quandd@hanu.edu.vn)

# Passing the course

- Not being absent from more than 20% lessons (lectures and tutorials)
- Final grade  $\geq 5$

# Final grade calculation

- Final grade is calculated as the weighted sum of the grades from dicussion part (A) and assignment part (B) and final exam part (C)

$$\text{Final mark} = (0.1 * A) + (0.3 * B) + (0.6 * C)$$

# Test

- Attendance:

The requirement for taking final exam is attending more than or equal 80%

- No mid term test
- Final test covers 60% final grade

# Assignment

- You will have 2 assignments (A1, A2). Each assignment will cover 50% of your assignment mark.

$$\text{assignment mark} = A1 * 0.5 + A2 * 0.5$$

- Late submission will cost you 10% mark per day.

# Nature of the module

This module is an advanced programming module. It consists of three parts.

- Part 1: Students will be introduced to the programming language concept and a classification of languages.
- Part 2: Introduces the students to concepts, features and benefits of OOP. Students will apply this knowledge to develop a basic object oriented program.
- Part 3: Student will learn some advanced concept in Java programming (Collections, Exception, I/O handling, Generic, GUI) and implement in practice.

# Learning Objectives

Upon completion of this module, students are expected to:

- Understand OOP concept, features and benefit.
- Apply OOP to solve basic problem.
- Using knowledge of Collections, Exception, I/O handling, Generic, GUI in solving practical problem.



# Recommended textbook

- Le Minh Duc - Object Oriented Program Development
- Sommerville - 2011 - Software Engineering
- Guttag, Liskov - Program Development in Java
- Joshua Bloch - Effective Java
- Herb Schildt - Java the complete reference
- Scott - Programming Language Pragmatics