

Compilers – The Sequel

hussein suleman
uct csc3005h 2006

Outline

- Lectures
 - Monday, Wednesday, Friday
 - 6 weeks
- Tests
 - 6 September (probably most of Compilers)
 - 11 October (probably only Algorithms)
- Assignments
 - Assignment 1: due 21 August
 - Assignment 2: due 4 September
 - Assignment 3: due 26 September

Refresher

- What is a compiler?
 - "A compiler's primary function is to compile, organize the compilation, and go right back to compiling. It compiles basically only those things that require to be compiled, ignoring things that should not be compiled. The main way a compiler compiles, is to compile the things to be compiled until the compilation is complete."

Refresher-in-one-slide

- How does a compiler work?
 - ☑ Lexical analysis – divide program into symbols
 - ☑ Parsing – create tree form of program
 - Check data types
 - Determine variables in each section
 - Transform code to fictitious (IR) machine code
 - Optimise IR code
 - Transform IR code to real machine code
 - Optimise register usage