# COURSE DETAIL

| COMPILER DESIGN |
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| **Country**<br>Korea, South |
| **Host Institution**<br>Yonsei University |
| **Program(s)**<br>Yonsei University |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Computer Science |
| **UCEAP Course Number**<br>112 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>COMPILER DESIGN |
| **UCEAP Transcript Title**<br>COMPILER DESIGN |
| **UCEAP Quarter Units**<br>4.50 |
| **UCEAP Semester Units**<br>3.00 |

**Course Description**

A compiler is a computer program that translates text written in a given language (called the source language) into another language (the target language). With most compilers the source language is a high-level programming language (e.g., C, C++, Java), and the target language is a lower-level representation such as assembly language or byte code. This course focus is on compiler techniques needed to implement programming languages on a virtual machine. The aims are to improve programming skills by learning how a compiler works; to apply the theoretical foundations of compilation techniques; to design and implement a compiler for a small programming language; to learn about virtual machines (the JVM in particular); and to practice software engineering design principles on a medium-sized project. This course covers both practical and theoretical aspects of a compiler. Our main emphasis is on the compiler frontend (i.e., scanning, parsing, semantic analysis) and on code-generation for the JVM.

**Language(s) of Instruction**
English

**Host Institution Course Number**
CSI4104

**Host Institution Course Title**
COMPILER DESIGN

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Computer Science

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