

Relevant Course: Principles of Compiler design

Relevant Department : Computer Science

Relevant Semester: 1st to 5th semester

Pre-requisite : This module assumes familiarity with scanning and parsing, particularly LR parsers. The earlier QEEE module delivered under Compiler Design : LR Parsing : Theory and practice, has all the background material.

Lecture 1 : Semantic analysis - concepts and examples; Syntax Directed Translation Scheme (SDTS); semantic analysis of declarations; semantic analysis of expressions in C/C++. Intermediate code forms. Illustration through examples.

Lecture 2 : Semantic analysis of assignment statement; translation of boolean expressions - partial and complete evaluation; translation of control flow statements. Illustration through examples.

Lecture 3 : Translation of procedure calls; runtime environments and activation records. Illustration through examples.