

<b>Course Title</b>	<b>Theory of Programming Languages</b>
<b>Course Code</b>	<b>SC-341</b>
<b>Credit Hours</b>	3
<b>Category</b>	CS Supporting
<b>Prerequisite</b>	Programming Fundamentals
<b>Co-Requisite</b>	None
<b>Follow-up</b>	None
<b>Course Description</b>	Introduction: Models of Computation, Syntax and Semantics, Pragmatics, Language Design Principles. Syntax and Semantics: Context-Free Grammars, Regular Expressions, Attribute Grammars and Static Semantics, Algebraic Semantics, Axiomatic Semantics, Denotational Semantics. BNF grammars and Syntax, Operational Equivalence, Abstraction and Generalization, Expressions, Assignment Statement, and Control Structures, Functional Programming: The Lambda Calculus, Operational Semantics, Reduction Order, Recursive Functions, Logic Programming, Inference Engine, Concurrency.
<b>Text Book(s)</b>	Concepts of Programming Languages, Robert W. Sebesta, 10th edition, 2012
<b>Reference Material</b>	Scott, Michael L., Programming Language Pragmatics, 2nd edition, 2006 Theory Introduction to Programming Languages, by Anthony A. Aaby, 2004 Principles of Programming Languages by Mike Grant Zachary Palmer Scott Smith, John Hopkins University 2016.