

COURSE DESCRIPTION

Department and Course Number	CS332L	Course Coordinator	Russ Abbott
Course Title	Logic programming	Total Credits	2

Current Catalog Description:

Programming in a non-procedural logic programming language such as Prolog. Programming in a language that supports unification and backtracking and in which the execution of a program is the search for values that satisfy a declarative specification.

Textbook:

Clocksin, Mellish,. *Programming in Prolog, 5th edition*, Springer Verlag, 2003.

References:

At the discretion of the instructor.

Course Goals:

- To teach students the theory and practice of logic programming.

These course goals contribute to the success of **Student Learning Outcomes 1.a, 1.d, 1.e, 5, and 6.**

Prerequisites by Topic:

Basic competence in a programming language

Major Topics Covered in the Course:

- Declarative semantics
- Operational semantics
 - The Prolog programming language
 - Backtracking
 - Unification
 - Data structures
 - Meta predicates
- Expert systems (optional)

Laboratory Projects (specify number of weeks on each):

Typically one each week

Estimate Curriculum Category Content (Quarter Hours)

Area	Core	Advanced	Area	Core	Advanced
Algorithms	.25		Data Structures	.25	
Software Design	0.5		Prog. Languages	1.0	
Comp. Arch.					

Oral and Written Communications:

The students are required to complete weekly programming assignments and to present them in class.

Social and Ethical Issues:

No significant component.

Theoretical Content:

The foundations of logic programming.

Problem Analysis:

Students are required to analyze problems whose solutions lend themselves to expression in a logic programming language.

Solution Design:

Students are required to design and develop programs in a logic programming language.