UCL
Université catholique de Louvain

LINGI2339

2014-2015

Abstract interpretation

5.0 credits	30.0 h + 15.0 h	1q	This biannual course is taught on years 2015-2016, 2017-2018, ...

Teacher(s) :	Le Charlier Baudouin ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	-- Static analysis of programs through abstract interpretation
Aims :	Students completing successfully this course will be able to -- apply methods related to the mathematic semantics of programming languages, -- situate these methods in th more general context of implementation of correct and robust softwares. Students will have developed skills and operational methodology. In particular, they have developed their ability to -- use rigorous methods to explore a problem and develop a solution *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled “Programmes/courses offering this Teaching Unit”.*
Evaluation methods :	-- written exam -- project
Teaching methods :	-- The first 5 weeks are devoted to theorical bases and practise of abstract interpreatation: abstract data domains, abstract semantic, algorithms of fix point calculus. -- Then, students perform individually or in groups of two, a static analyzer for the language SLIP. This analyzer is built into the compiler achieved during INGI2132. It optimizes and detects programming errors in the programs SLIP.
Content :	-- abstract data domains, -- abstract semantic, -- algorithms of fix point calculus.
Bibliography :	Recent articles
Other infos :	Background: -- INGI2132 - Languages et translators
Cycle and year of study :	> Master [120] in Computer Science > Master [120] in Computer Science and Engineering
Faculty or entity in charge:	INFO