BSc. COMPUTER SCIENCE

PRELIMINARY SCHEDULE FOR 2013-2014

YEAR 1

SEPTEMBER / OCTOBER	NOVEMBER / DECEMBER	JANUARY	FEBRUARY / MARCH	APRIL / MAY	JUNE
Academic Explorations (6EC)	Pervasive Computing (6EC)	Webtechnology (6EC)	Computer Systems (6EC)	Academic English (6EC)	Project Application Development (6EC)
Computer Networks (6EC)	Programming (6EC)		Logic and Sets (6EC)	Networks and Graphs (6EC)	

YEAR 2

SEPTEMBER / OCTOBER	NOVEMBER / DECEMBER	JANUARY	FEBRUARY/ MARCH	APRIL / MAY	JUNE
Data Structures & Algorithms (6EC)	Empirical Methods (6EC)	Intelligent Systems (6EC)	Security (6EC)	Software Modeling (6EC)	Human-Computer Interaction (6EC)
Advanced Programming (6EC)	Logic and Modeling (6EC)		Databases (6EC)	Philosophy (6EC)	

YEAR 3

SEPTEMBER / OCTOBER	NOVEMBER / DECEMBER	JANUARY	FEBRUARY/ MARCH	APRIL / MAY	JUNE
MINOR / OPTIONAL COURSES (30EC)			Automata and complexity (6EC)	Bachelor project Computer Science (18EC)	
			Machine Learning (6EC)		

Data Processing	Networks / Systems	Programming / Software / Engineering	Academic Skills	Logic & Algorithms

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VU UNIVERSITY AMSTERDAM — Faculty of Sciences

BSc. COMPUTER SCIENCE

DESCRIPTION OF FIRST-YEAR COURSES

COURSE	WHAT WILL YOU LEARN?
Academic Explorations	Get familiar with the field of Computer Science. Gain understanding of the topics and terminology and the setup of your bachelor's programme in Computer Science.
Computer Networks	Discover the foundations of computer networks, most notably the internet. Layer by layer, from the physical cables to the actual user interface, you will find out the techniques and protocols that are used to transfer data in a safe and efficient way. During the course you'll literally make your way from the bits and bytes to the applications.
Pervasive Computing	Pervasive computing means just that, the pervasiveness of computers in our living environment. Often we are not even aware of it, but computers power many useful things, from motion sensors to traffic lights. There are many useful applications of computers in healthcare, traffic safety and domotics. In this course you'll learn how pervasive computing systems work and what the implications of such systems are for humans.
Programming	Your step by step introduction into the world of object-oriented programming.
Webtechnology	Everyone uses the web, but how was it built? How does it work and what makes it so successful? This course takes you behind the screens of the web, you'll learn all the protocols, web-languages, web data and accessibility issues of the web.
Computer Systems	You learn how a computer system works, from the smallest processing unit to the processor and all the rest. How does a processor pass binary data and how can you build a system on that? What is memory exactly and how do you store something in it? This course takes you from the foundations to a working system.
Logic and Sets	You learn how to reason using logic and exact formulation. You will use this knowledge in making mathematical statements about sets and relations, logic puzzles, Boolean structures and indices. This is a course that can change your perspective.
Academic English	In Computer Science, an active knowledge of the English language is very important. You'll learn the specific English language used in scientific papers, enabling you to write such papers yourself at the end of your Bachelor.
Networks and Graphs	Networks are graphs where everyone is connected to everyone. The internet is such a graph, as is your facebook network. This course teaches you to work with such graphs and do analyises on them.
Project Application development	This exciting project combines the knowledge and skill you obtained during your first year.

Data Processing
Networks / Systems
Programming / Software / Engineering
Academic Skills
Logic & Algorithms

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