# **Psychology & Technology- Specialisation ICT**

First year students 2016-2017 From: Martijn Willemsen – Monique Jansen-Vullers Date: 12-07-2017 (minor update in red on version 1 dated 10-05-2017)

Below you can find an overview of the courses offered by the department of Computer Science which may be interesting for you. We clustered the courses based on the following topics:

- App Development
- Web Technology
- Computer Science Essentials
- Business Information Systems
- Computer Science Engineering

These topics are, or were, elective packages. The composition changed a bit over time and given the hanges in Computer Science programs at the moment, we expect some more changes. You can use the overview as a guideline what to consider coherent courses; this will be stable over time.

In the overview below, we collected the course information currently available in the Osiris course catalogue 2017-2018. Please, check the information in Osiris regularly.

## Major

1E	2IP90	Programming
2E	2IT60	Logic and Set Theory
3E	21080	DBL Hypermedia
4E	2IC60	Computer Netwirks and Scurity

#### **App Development**

				Overlap with
4A	21S60	App Programming	BC level 1	2IP90
				Last time in Q1
				2017-2018; new
2C	2DI60	Web Technology	BC-level 2	DBL 2IOA0
				Last time 2016-
				2017; part of new
4C	2DI40	Human Technology Interaction	BC level 1	DBL 2IOA0
				Timeslot changes
3C -> 3D	2IS70	DBL App Delopment	BC-level 2	as of 2017-2018

Given the significant overlap of elective packages App Development and Web Technology, and also with some PT-ICT courses, we consider those five courses coherent for PT-ICT.

#### Web Technology

				Last time in Q1
				2017-2018; new
2C	2DI60	Web Technology	BC-level 2	DBL 2IOA0

					Last time 2016- 2017: part of new
4C	2DI40	Human Technology Interaction		BC level 1	DBL 2IOA0
					Timeslot changes
3C -> 3D	2IS70	DBL App Delopment		BC-level 2	as of 2017-2018
2B	2IID0	Web Analytics	2DI60	BC-level 3	

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#### **Computer Science Essentials**

	2IP90/2IS60	(App) Programming	nvt	BC level 1	
1B or 3B	2IL50	Data structures	see*	BC-level 2	
2E	2ID50	Datamodeling and databases	21T60	BC-level 2	
2BD en					Changes as of
4BD -> 3D	21090	DBL Algorithms			2018/2019.

### **MSc Business Information Systems**

			2IT60, 2IT70,		
1D or 3A	2IHI10	Business Information Systems	2IP90, 2ID50	premastervak	
			2WAB0,		
2E	2DI60	Stochastic operations research	2DI90/2DL10	BC-level 2	
2E	2ID50	Datamodeling and databases	2IT60	BC-level 2	
2C or 4B	2IT70	Automata and process theory	2IT60	BC-level 2	
				BC-level 3 ->	Changes as of
4B -> 3C	210C0	DBL Information systems	2ID50	BC level 2	2018/2019.
1D	211C0	Business information systems	2IT60, 2IT70, 2IP90, 2ID50	BC-level 3	Same course as 2IHI10? Last time 2018/2019
			Basic		
			computer		
3B	2IIE0	Business process intelligence	science skills	BC-level 2	

#### **MSc Computer Science Engineering**

2E	2ID50	Datamodeling and databases	2IT60	BC-level 2	
2C or 4B	2IT70	Automata and process theory	21T60	BC-level 2	
1B or 3B	2IL50	Data structures	see*	BC-level 2	
			2IP90;		
			programming,		
2A	2IV60	Computer graphics	LA	BC-level 2	
3C	2DBN00	Lineaire algebra	2WBB0	BC-level 2	
					Changes as of
3D -> 2B	2IPC0	Programming Methods	see**	BC-level 3	2018/2019.
			2IC30, 2ID60,		in major PT-ICT
4E	2IC60	Computer networks and security	2IT50	BC-level 3	until 2016-2017
2C	2IPD0	Software Engineering	2IP90, 2IPC0	BC-level 3	

\* Being able to work with basic programming constructs such as linked lists, arrays, loops Being able to apply standard proving techniques such as proof by induction, proof by contradiction Being familiar with sums and logarithms such as discussed in Chapter 3 and Appendix A of the textbook.

\*\*Basic knowledge of imperative programming and object-oriented programming using Java. Basic knowledge of set theory and first-order predicate logic. Basic knowledge of data structures. Basic knowledge of automata. Basic knowledge of discrete structures, in particular, lists, trees, graphs