# **Undergraduate Program for 2014**

#### 1 Training target

The major of computer science and technology aims at training professionals who possess the proper knowledge and integrated skills with computer science and technology basic theory, basic skills and methods, and have strong ability of computer software system analysis, design, development and software project management skills, and are able to do in the field of computer science and technology and related computer teaching and scientific research, system design, and project management skills.

#### 2 Length of schooling

Four years

### 3 Award degree

Bachelor of engineering

## **4** Credits requirement

160 credits (not include Extra credit). 48 credits for general compulsory courses, 9 credits for general elective courses, 46 credits for discipline basic course, 30 credits for professional required courses, 11 credits for professional limited selection courses, 16 credits for comprehensive application courses. Any more, students also need to get 10 quality development for extra-curricular credits, and to read the "health education of College students".

### 5 Requirement for the students from Hong Kong, Macao and Taiwan

In Accordance to the Education Office of Guangdong province, the students from Hong Kong, Macao and Taiwan do not need to take part in "defense education" and "ideological and political theory", but they should take part in the rest of courses strictly, and accordance with requirements of the professional teaching plan, hours and credits.

### 6 Requirement for the international students

In Accordance with the education office of Guangdong province, the international students do not need to take part in "national defense education" except the majors of philosophy, politics and economics, but they should pass the rest of courses strictly, and accordance with requirements of the professional teaching plan, hours and credits. **7 Teaching schedule** 

course	course nature	lowest				lowest cree	dits of each t	term			total
category		credits	1	2	3	4	5	6	7	8	
	obligatory	48	10.5	9	12	5	7	4.5	0	0	48
general	limited	9	0	1	1	1	2	2	2	0	9
discipline	obligatory	46	13	9	16	8	0	0	0	0	46
professional	obligatory	30	2	4	0	8	13	3	0	0	30
professional	limited	11	0	0	0	0	0	5	6	0	11
comprehensive application	obligatory	16	0	3	0	2	2	2	2	5	16

Table 1. table of credits requirement

total	160	25.5	26	29	24	24	17	10	5	160
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													Term	/ we	eks /	hours	Ş		
course	course	course	course	course name	Credits	Weeks (w)	Hours (h)	hou	irs allo	cation	1	2	3	4	5	6	7	8	Exam
category	nature	type	code		(0)			teach	Exp.	practice	15	16	16	16	16	16	16	15	
		national defense education	140471	Military theory(training)	1.0	15	15	15	0	0	1								☆
			140193	Marx's basic principle	3.0	15	45	30	0	15	3								*
			140464	Ideological and moral cultivation and legal basis	4.0	16	64	64	0	0			4						*
General course			140222	Outline of modern history of China	2.0	16	32	32	0	0			2						*
	Obligatory	Ideological and political theory course	140473	Introduction to the theoretical system of Mao Zedong and socialism with Chinese characteristics(1)	3.0	16	48	32	0	16				3					*
		course	140483	Introduction to the theoretical system of Mao Zedong and socialism with Chinese characteristics(2)	3.0	16	48	32	0	16					3				*
			140242	Situation and policy	2.0	16	32	32	0	0						2			\$
		Language	121542	University Chinese	2.0	16	32	32	0	0		2							*
		and skills(1)	121552	Application Writing	2.0	16	32	32	0	0			2						*
			090834	College English IIIa	4.0	15	60	60	0	0	4								*
			090864	College English IIb	4.0	15	60	60	0	0	4								*
		Languaga	090874	College English IIIb	4.0	16	64	64	0	0		4							*
		and	090844	College English IVa	4.0	16	64	64	0	0		4							*
		skills(2)	180264	English Chinese / English translation	4.0	16	64	64	0	0			4						*
			090884	College English IVb	4.0	16	64	64	0	0			4						*
			180412	Academic English	2.0	16	32	32	0	0				2					*

Table 2. table of course schedule

		400015	Career development and planning	0.5	8	8	8	0	0	1							$\overset{\wedge}{\swarrow}$
		130452	Sports option I	2.0	15	30	30	0	0	2							
	Physical	140611	Mental health education	1.0	15	15	15	0	0		1						☆
	and mental	130462	Sports option II	2.0	16	32	32	0	0		2						
	education	130472	Sports option III	2.0	16	32	32	0	0					2			☆
		130482	Sports option IV	2.0	16	32	32	0	0						2		☆
		400002	Pioneering work	2.0	16	32	32	0	0					2			\$
		40025	Employment guidance	0.5	8	8	8	0	0						1		$\overrightarrow{x}$
	40025		subtotal	48		758	695		63	11	9	12	5	7	5		
		990032	General elective course (1)	1.0	16	16	16	0	0		1						$\overrightarrow{x}$
		990062	General election (2)	1.0	16	16	16	0	0			1					☆
limited	General	990072	General election (3)	1.0	16	16	16	0	0				1				\$
election	000001	Humanities science	2.0	16	32	32	0	0					2			☆	
		990042	Social science courses	2.0	16	32	32	0	0						2		$\overrightarrow{x}$
		990052	Art Program course	2.0	16	32	32	0	0							2	$\overleftrightarrow$
			subtotal	9		144					1	1	1	2	2	2	

# Table 2. table of course schedule (continue)

								ha					Tern	n / we	eks / h	ours			
course	course	course tune	course	course name	Credits	Weeks	Hours	по	urs alloc	ation	1	2	3	4	5	6	7	8	avam
category	nature	course type	code	course name	(c)	(w)	(h)	teach	Exp.	practice	15	16	16	16	16	16	16	15	exam
			100066	Advanced mathematics I	6.0	15	90	90	0	0	6								*
			110084	Program design	4.0	15	60	40	20	0	4								*
			111303	Introduction to computer science	3.0	15	45	45	0	0	3								*
	Obligatory		100074	Advanced mathematics II	4.0	16	64	64	0	0		4							*
dissipling		Discipline	110555	Digital and analog circuit technology	5.0	16	80	58	22	0		5							*
discipline		Discipline basic course	101044	Linear algebra	4.0	16	64	64	0	0			4						*
			110094	Discrete mathematics	4.0	16	64	64	0	0			4						*
			110104	Data structure	4.0	16	64	54	10	0			4						*
			119704	Computer composition principles and assembly language	4.0	16	64	44	20	0			4						*
			109235	Linear algebra A	5.0	16	80	80	0	0			5						*

			109445	Probability and statistics A	5.0	16	80	80	0	0				5					*
			105014	Probability and statistics	4.0	16	64	64	0	0				4					*
			110114	Operating system	4.0	16	64	54	10	0				4					*
				subtotal	46		723	641	82		13	9	16	8				<b> </b>	
			110422	Computer architecture	2.0	15	30	30	0	0	2								★
			110154	Object-oriented programming	4.0	16	64	42	22	0		4							★
			110124	Database principle	4.0	16	64	48	16	0				4					*
			110194	Microcomputer interface technology	4.0	16	64	56	8	0				4					*
professional	Obligatory	Basic	110174	Software engineering	4.0	16	64	48	16	0					4				*
			110183	Algorithms analysis and design	3.0	16	48	34	14	0					3				★
			110202	Numerical analysis	2.0	16	32	32	0	0					2				*
			110304	Computer networks	4.0	16	64	50	14	0					4				*
			110243	Basic theory of artificial intelligence	3.0	16	48	36	12	0						3			*
				subtotal	30		478	376	102		2	4		8	13	3			
professional	limited	Multimedia	110253	Image process	3.0	16	48	42	6	0						3	$\square$		\$
		technology	110272	Multimedia technology	2.0	16	32	22	10	0						2			\$
			110283	Computer graphics	3.0	16	48	42	6	0						3			☆
			119692	Computer English	2.0	16	32	32	0	0						2			☆
			112321	Computer pioneering technology	1.0	16	16	16	0	0							1		☆
			119203	Information security	3.0	16	48	42	6	0							3		☆
			119393	Pattern recognition	3.0	16	48	38	10	0							3		\$
			119653	Large database application system	3.0	16	48	27	21	0							3		☆
			113233	Network analysis and management	3.0	16	48	0	48	0						3			☆
			113242	Network programming	2.0	16	32	16	16	0						2			\$
			119223	Network attack and prevention	3.0	16	48	34	14	0						3			☆
		Network	119692	Computer English	2.0	16	32	32	0	0						2			\$
			112321	Computer pioneering technology	1.0	16	16	16	0	0							1		Å
			119203	Information security	3.0	16	48	42	6	0							3		\$
			119381	Network technology project	1.0	8	16	16	0	0							2		\$
				subtotal	11		176	144	32							5	6		

course	course	course	course	0011820 00000	Credits	Weeks	Hours	hours allocation		_	Term	/ wee	ks / h	ours	_		
category	nature	type	code	course name	(c)	(w)	(h)	nours anocation	1	2	3	4	5	6	7	8	exam

								teach	exp.	practice	15	16	16	16	16	16	16	15	
Comprehen	Obligatory	comprehens	119871	Social survey	1.0	3	0	0	0	0		0							$\stackrel{\wedge}{\simeq}$
sive application		ive application	112452	Programming course design	2.0	8	32	0	32	0		4							\$
			113652	Data structure course design	2.0	8	32	10	22	0				4					☆
			119532	Database system design	2.0	8	32	10	22	0					4				☆
			112462	Software engineering course design	2.0	8	32	0	32	0						4			\$
			112432	Comprehensive practice	2.0	8	32	10	22	0							4		☆
			116032	Graduation practice	2.0	10	0	0	0	0								0	24
			116083	Graduation design	3.0	5	0	0	0	0								0	\$
				subtotal	16		160	30	130			4		4	4	4	4		

Note:

★: Examination

 $\stackrel{}{\simeq}$ : Investigation