TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City

2018 CURRICULUM FOR BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSCS)

IMPORTANT: Registration in any course/s without all the pre-requisite/s, correct sequence and authorized load shall not be given any credit regardless of the grade/s obtained.

NAME　:　　　　　　　　　　　　　　　　　STUDENT NO　:

COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
FIRST YEAR, FIRST SEMESTER (20 UNITS)						
GEC	004	Mathematics in the Modern World	3	0	3	
GEC	001	Understanding the Self	3	0	3	
MATH	013	Linear Algebra with MATLAB	2	3	3	
MATH	014	Number Theory	3	0	3	
CS	001	Introduction to Computing	3	0	3	
ITE	001	Computer Programming 1	2	3	3	
PE	001	Physical Education 1	2	0	2	
NSTP	001	National Service Training Program 1	(3)	0	(3)	
		TOTAL	**18**	**6**	**20**	
FIRST YEAR, SECOND SEMESTER (21 UNITS)						
GEC	005	Purposive Communication	3	0	3	
GEC	003	The Contemporary World	3	0	3	
GEC	006	Art Appreciation	3	0	3	
MATH	015	Symbolic Logic	3	0	3	MATH 014(P)
ITE	012	Computer Programming 2	2	3	3	ITE 001(P)
PE	002	Physical Education 2	2	0	2	
NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001(P)
MATH	007	Differential Calculus	4	0	4	MATH 013(P)
		TOTAL	**20**	**3**	**21**	
SECOND YEAR, FIRST SEMESTER (24 UNITS)						
CS	409	Mobile Computing	2	3	3	ITE 001(P)
CS	200	Principles of Programming Languages	3	0	3	CS 001(P) ITE 001(P)
CS	003	Computer Architecture and Organization	2	3	3	CS 001(P)
PE	003	Physical Education 3	2	0	2	
MATH	008	Integral Calculus	4	0	4	MATH 007(P)
CS	002	Advanced Object-Oriented Programming	2	3	3	ITE 012(P)
GEC	002	Readings in Philippine History	3	0	3	
GEE	001	General Education Elective 1	3	0	3	
		TOTAL	**21**	**9**	**24**	
SECOND YEAR, SECOND SEMESTER (25 UNITS)						
MATH	012A	Introduction to Numerical Analysis	3	0	3	MATH 007(P)
PHYS	001C	Calculus-Based Physics (Physics for Engineers)	3	3	4	MATH 008(P)
MATH	006	Discrete Mathematics	3	0	3	MATH 015(P)
ITE	005	Operating Systems	3	0	3	CS 003(P)
ITE	014	Information Management	2	3	3	ITE 012(P)
PE	004	Physical Education 4	2	0	2	
CS	201A	Data Structures and Algorithms Analysis	3	3	4	CS 001(P) CS 002(P)
GEE	002	General Education Elective 2	3	0	3	
		TOTAL	**22**	**9**	**25**	
THIRD YEAR, FIRST SEMESTER (24 UNITS)						
SOCSC	005	Life and Works of Rizal	3	0	3	
MATH	009CS	Probability and Statistics (w/ Lab)	2	3	3	MATH 014(P)
CS	004	Networks and Communications	2	3	3	ITE 005(P)
ITE	013	Application Development and Emerging Technologies	2	3	3	CS 409(P)
CS	403	Intelligent Agents	2	3	3	MATH 012A(P)
CS	300	Automata Theory and Formal Languages	3	0	3	CS 201A(P) MATH 006(P)

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	CS	301	Software Engineering 1	2	3	3	ITE 014(P)
	GEC	007	Science, Technology, and Society	3	0	3	
			TOTAL	**19**	**15**	**24**	
THIRD YEAR, SECOND SEMESTER (25 UNITS)							
	CHEM	001C	Chemistry for Engineers	3	3	4	
	ITE	015	Social Issues and Professional Practice	3	0	3	CS 301(P) ITE 010A(C)
	CS	302	Modeling and Simulation	2	3	3	CS 403(P) MATH 009CS(P)
	CS	006	Algorithms and Complexity	3	0	3	CS 300(P) MATH 012A(P)
	CSELEC	001	CS Elective 1	2	3	3	See track for pre-requisite(s)
	ITE	010A	Human Computer Interaction	2	3	3	ITE 013(P)
	CS	005	Information Assurance and Security	2	3	3	CS 004(P) ITE 014(P)
	GEE	003	General Education Elective 3	3	0	3	
			TOTAL	**20**	**15**	**25**	
THIRD YEAR, SUMMER (9 UNITS)							
	CS	304	Software Engineering 2	2	3	3	CS 302(P) ITE 015(P)
	CS	007	Parallel and Distributed Computing	2	3	3	CS 004(P)
	CSELEC	002	CS Elective 2	2	3	3	See track for pre-requisite(s)
			TOTAL	**6**	**9**	**9**	
NO STUDENT SHALL BE ALLOWED TO TAKE FOURTH YEAR PROFESSIONAL COURSES UNLESS HE HAS COMPLETED THE BASIC AND THE THIRD YEAR COURSES INCLUDING PE AND NSTP COURSES.							
FOURTH YEAR, FIRST SEMESTER (15 UNITS)							
	TECH	101	Technopreneurship	3	0	3	ITE 015(P)
	FELEC	001	Free Elective	2	3	3	See track for pre-requisite(s)
	CSELEC	003	CS Elective 3	2	3	3	See track for pre-requisite(s)
	CS	307	Thesis 1	2	3	3	CS 304(P) TECH 101(C)
	GEC	008	Ethics	3	0	3	
			TOTAL	**12**	**9**	**15**	
FOURTH YEAR, SECOND SEMESTER (6 UNITS)							
	CS	402	Internship in Computing	0	9	3	CS 304(P)
	CS	401	Thesis 2	0	9	3	CS 307(P)
			TOTAL	**0**	**18**	**6**	
FREE ELECTIVE COURSES							
	ITE	503	Current Trends and Issues in Computing	3	0	3	ITE 013(P)
	SAP	501	SAP / SAS	2	3	3	ITE 014(P)
	IT	401	Data Mining and Warehousing	2	3	3	ITE 014(P)
	IS	015	Big Data Analytics	2	3	3	ITE 014(P)
	ELF	413	Mandarin	2	3	3	
	ELF	423	Spanish	2	3	3	
	ITE	020	Quality Assurance	3	0	3	CS 304(P)
	IT	008	Systems Administration and Maintenance	2	3	3	CS 004(P)
	IS	005	Introduction to Project Management	3	0	3	CS 304(P)
	IE	003B	Operations Research	2	3	3	CS 006(P) CS 302(P)
			TOTAL	**23**	**21**	**30**	
ELECTIVE COURSES							
TRACK 1: INTELLIGENT SYSTEMS							
	CS	404	Expert Systems	2	3	3	CS 403(P)
	CS	405	Natural Language Processing	2	3	3	CS 404(P)
	CS	406	Machine Learning	2	3	3	CS 007(P) CS 405(P)
			TOTAL	**6**	**9**	**9**	
TRACK 2: GAME DEVELOPMENT							
	CS	407	Multimedia Technology	2	3	3	ITE 013(P)
	CS	008	Level Design and Scripting	2	3	3	CS 302(P) CS 407(P)
	CS	009	Multiplayer and Online Programming	2	3	3	CS 007(P) CS 008(P)

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				TOTAL	6	9	9	
	TRACK 3: DATA SCIENCE							
	ITE	404	Introduction to Data Science in Python		2	3	3	CS 403(P) MATH 009CS(P)
	ITE	405	Applied Plotting, Charting, and Data Representation		2	3	3	CS 302(P) ITE 404(P)
	ITE	406	Applied Text Mining / Applied Social Network Analysis		2	3	3	CS 007(P) ITE 405(P)
				TOTAL	6	9	9	

CREDENTIALS PRESENTED:
( ) F137A ( ) NSO Birth Certificate
( ) F138 ( ) HD
( ) GMC ( ) TOR

DEFICIENCY/IES:
_____
_____
_____

Evaluated By: _____
Date: _____
Received By: _____
Date: _____

LEGEND
P = Pre-requisite
C = Co-requisite

NOTE: EVALUATION IS TENTATIVE AND MAY BE REVISED FOR SOME VALID CAUSES OR REASONS OR IF OMISSIONS AND/OR LACK OF UNITS CREDITED BE DISCOVERED LATER.