

**CENTRO ESCOLAR UNIVERSITY**  
Manila \* Makati  
**School of Science and Technology**

FOUR-YEAR PROGRAM LEADING TO THE DEGREE  
**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**  
Effective School Year 2020-2021

**FIRST YEAR**  
**First Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
PCCO101	Introduction to Computing	2	1	0	3	2	3	0	5	NONE
PCCO102	Algorithm and Logic Formulation	2	1	0	3	2	3	0	5	NONE
PCCO103	Fundamentals of Programming	2	1	0	3	2	3	0	5	NONE
COMA11	Mathematics in the Modern World	3	0	0	3	3	0	0	3	NONE
COPY11	Understanding the Self	3	0	0	3	3	0	0	3	NONE
COPE21	<b>PATH-FIT 1: Movement Competency Training</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>NONE</b>
COSH11	Empowering the Self	2	0	0	2	2	0	0	2	NONE
COSH21	Religion: History and Texts	3	0	0	3	3	0	0	3	NONE
<b>TOTAL</b>		<b>19</b>	<b>3</b>	<b>0</b>	<b>22</b>	<b>19</b>	<b>9</b>	<b>0</b>	<b>28</b>	

**Second Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
PRCO151	Discrete Structure 1	3	0	0	3	3	0	0	3	NONE
PCCO104	Intermediate Programming	2	1	0	3	2	3	0	5	PCCO103
PCMA103	Mathematics for Computer Science	3	0	0	3	3	0	0	3	NONE
COLA11	Purposive Communication	3	0	0	3	3	0	0	3	NONE
COLA31	Foreign Language 1	3	0	0	3	3	0	0	3	NONE
COLA51	Expository Writing for Global Communication	3	0	0	3	3	0	0	3	NONE
COSH31	Art Appreciation	3	0	0	3	3	0	0	3	NONE
COSH41	Readings in Philippine History	3	0	0	3	3	0	0	3	NONE
COPE22	<b>PATH-FIT 2: Swimming/Recreation</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>NONE</b>
<b>TOTAL</b>		<b>25</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>28</b>	

**SECOND YEAR**

**First Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
PRCO152	Discrete Structure 2	3	0	0	3	3	0	0	3	PRCO151
PCCO105	Data Structures and Algorithm	2	1	0	3	2	3	0	5	PCCO103
PCCO106	Information Management	2	1	0	3	2	3	0	5	NONE
PCCO110	Object Oriented Programming	2	1	0	3	2	3	0	5	PCCO104
COLA32	Foreign Language 2	3	0	0	3	3	0	0	3	COLA31
CONS21	Science, Technology and Society	3	0	0	3	3	0	0	3	NONE
COSH43	The Life and Works of Rizal	3	0	0	3	3	0	0	3	NONE
COPE23	<b>PATH-FIT 3: Dance/Individual-Dual Sports</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>NONE</b>
CONP11	NSTP 1	3	0	0	3	3	0	0	3	NONE
<b>TOTAL</b>		<b>23</b>	<b>3</b>	<b>0</b>	<b>26</b>	<b>23</b>	<b>9</b>	<b>0</b>	<b>32</b>	

**Second Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
PRCO131	Robotics	2	1	0	3	2	3	0	5	PCCO103
PRCO154	Algorithm and Complexity	3	0	0	3	3	0	0	3	PCCO104
PCCO107	Applications Development and Emerging Technologies	2	1	0	3	2	3	0	5	PCCO104
PCCO108	Fundamentals of Database Systems	2	1	0	3	2	3	0	5	NONE
COMA51	Understanding the Data Around Us	3	0	0	3	3	0	0	3	NONE
COSH32	Ethics	3	0	0	3	3	0	0	3	NONE
COSH42	The Contemporary World	3	0	0	3	3	0	0	3	NONE
COPE24	<b>PATH-FIT 4: Team Sports/Games</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>NONE</b>
CONP12	NSTP 2	3	0	0	3	3	0	0	3	CONP11
<b>TOTAL</b>		<b>23</b>	<b>3</b>	<b>0</b>	<b>26</b>	<b>23</b>	<b>9</b>	<b>0</b>	<b>32</b>	

**THIRD YEAR**

**First Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
	CS Elective 1	2	1	0	3	2	3	0	5	PCCO107
PRCO121	Networking I (Networking and Communication)	2	1	0	3	2	3	0	5	PCCO101
PRCO132	Animation	2	1	0	3	2	3	0	5	NONE
PRCO153	Automata Theory and Formal Languages	3	0	0	3	3	0	0	3	PRCO151
PRCO165	Information Assurance and Security	2	1	0	3	2	3	0	5	PCCO106
PRCO171	Software Engineering I	2	1	0	3	2	3	0	5	PCCO104
PCCO109	Advanced Database Systems	2	1	0	3	2	3	0	5	PCCO108
COEF21	Environmental Stewardship	3	0	0	3	3	0	0	3	NONE
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>0</b>	<b>24</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>36</b>	

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**Second Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
	CS Elective 2	2	1	0	3	2	3	0	5	PCCO107
PRCO122	Networking 2	2	1	0	3	2	3	0	5	PRCO121
PRCO161	Architecture and Organization	3	0	0	3	3	0	0	3	PCCO101
PRCO163	Social Issues and Professional Practice	3	0	0	3	3	0	0	3	PCCO107
PRCO172	Software Engineering 2	2	1	0	3	2	3	0	5	PRCO171
COSH12	Living and Loving Relationships	2	0	0	2	2	0	0	2	NONE
COSH22	Man, Church and Society	3	0	0	3	3	0	0	3	NONE
<b>TOTAL</b>		<b>17</b>	<b>3</b>	<b>0</b>	<b>20</b>	<b>17</b>	<b>9</b>	<b>0</b>	<b>26</b>	

**FOURTH YEAR**

**First Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
	CS Elective 3	2	1	0	3	2	3	0	5	PCCO107
PRCO123	Networking 3	2	1	0	3	2	3	0	5	PRCO122
PRCO133	Game Development	2	1	0	3	2	3	0	5	PCCO104
PRCO156	Programming Languages	2	1	0	3	2	3	0	5	NONE
PRCO162	Operating Systems	2	1	0	3	2	3	0	5	PRCO161
PRCO164	Human Computer Interaction	2	1	0	3	2	3	0	5	PCCO101
PRCO191	Undergraduate Research 1	3	0	0	3	3	0	0	3	PRCO172
COLA21	Malikhaing Komunikasyon Gamit ang Panitikang Popular	3	0	0	3	3	0	0	3	NONE
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>0</b>	<b>24</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>36</b>	

**Second Semester**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Prac	Total	Lec	Lab	Prac	Total	
PRCO124	Networking 4	2	1	0	3	2	3	0	5	PRCO123
PRCO125	Cloud Computing	2	1	0	3	2	3	0	5	PRCO123
PRCO183	On-the-Job-Training - 300 hours (total)	-	-	6	6	3	0	17	20	PRCO163, PRCO172
PRCO192	Undergraduate Research 2	3	0	0	3	3	0	0	3	PRCO191
<b>TOTAL</b>		<b>7</b>	<b>2</b>	<b>6</b>	<b>15</b>	<b>10</b>	<b>6</b>	<b>17</b>	<b>33</b>	

Total No. of Units: **183**

**RECOMMENDED ELECTIVES**

Class Code	Descriptive Title	Units				No. of Hours				Pre-requisite
		Lec	Lab	Int	Total	Lec	Lab	Int	Total	
PRCO141	Computational Science	2	1	0	3	2	3	0		NONE
PRCO142	Graphics and Visual Computing	2	1	0	3	2	3	0		NONE
PRCO143	Parallel and Distributed Computing	2	1	0	3	2	3	0		NONE
PRCO144	Intelligent System	2	1	0	3	2	3	0		NONE
PRCO145	Systems Fundamentals	2	1	0	3	2	3	0		NONE

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