



**University of Science and Technology of Southern Philippines**  
**College of Information Technology and Computing**  
 Department of Information Technology and Computing

**BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING**  
 EFFECTIVE S.Y. 2018-2019

<b>FIRST YEAR</b>								
<i>First Semester</i>								
<b>Course Code</b>		<b>Description</b>	<b>No. of Hours</b>			<b>Units</b>	<b>Pre-requisites</b>	<b>Co-requisites</b>
			<b>Lec</b>	<b>Lab</b>	<b>Total</b>			
Math	111	Calculus 1	3	0	3	<b>3</b>	None	None
Chem	111	Chemistry for Engineers	3	3	6	<b>4</b>	None	None
ES	106	Computer Programming	0	6	6	<b>2</b>	None	None
ES	105	Computer – Aided Drafting	0	3	3	<b>1</b>	None	None
FIL	101	Panitikan	3	0	3	<b>3</b>	None	None
Math	101	Mathematics in Modern World	3	0	3	<b>3</b>	None	None
SS	40	Ethics	3	0	3	<b>3</b>	None	None
PE	101	Physical Education 1	2	0	2	<b>2</b>	None	None
NSTP	101	ROTC/CWTS/LTS 1	3	0	3	<b>3</b>	None	None
<b>Total</b>			<b>20</b>	<b>12</b>	<b>32</b>	<b>24</b>		

<b>FIRST YEAR</b>								
<i>Second Semester</i>								
<b>Course Code</b>		<b>Description</b>	<b>No. of Hours</b>			<b>Units</b>	<b>Pre-requisites</b>	<b>Co-requisites</b>
			<b>Lec</b>	<b>Lab</b>	<b>Total</b>			
ECE	121	Introduction to Electronics Engineering	1	3	4	<b>2</b>	Math 111	Phys 121
ES	209	Engineering Data Analysis	3	0	3	<b>3</b>	Math 111	None
Math	121	Calculus 2	3	0	3	<b>3</b>	Math 111	None
Phys	120	Physics for Engineers	3	3	6	<b>4</b>	Math 111	Math 111
Phys	121	Physics 2	3	3	6	<b>4</b>	Math 111	Phys 120
FIL	102	Purposive Communication	3	0	3	<b>3</b>	None	None
PE	102	Physical Education 2	2	0	2	<b>2</b>	PE 101	None
NSTP	201	ROTC/CWTS/LTS	3	0	3	<b>3</b>	NSTP 101	None
<b>Total</b>			<b>21</b>	<b>9</b>	<b>30</b>	<b>24</b>		



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SECOND YEAR								
<i>First Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	212	Electronics 1 (Electronic Devices & Circuits)	3	3	6	4	ECE121	EE211
EE	211	Electric Circuits 1	3	3	6	4	PHYS101	ES208
ECE	210	ECE Laws, Contract, Ethics, Standards & Safety	3	0	3	3	At least 2 <sup>nd</sup> Yr. standing	None
ES	301	Engineering Economics	3	0	3	3	ES 209	None
ES	404	Material Science & Engineering	3	0	3	3	CHEM10	None
ES	208	Differential Equations	3	0	3	3	MATH121	None
Math	102	Mathematics of Measurements	3	0	3	3	None	None
Eng	20	Arts Appreciation (Creativity in Engineering)	3	0	3	3	None	None
PE	103	Physical Education 3	2	0	2	2	PE102	None
<b>Total</b>			<b>26</b>	<b>6</b>	<b>32</b>	<b>28</b>		

SECOND YEAR								
<i>Second Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	223	Electronics 2 (Electronic Circuit Analysis & Design)	3	3	6	4	ECE212	None
ECE	221	Communications 1 (Principles of Communications)	3	3	6	4	ECE212	ECE223
ECE	220	Advanced Engineering Mathematics for ECE	3	3	6	4	ES208	None
ECE	222	Electromagnetics for ECE	4	0	4	4	ES208, PHYS101	None
EE	222	Electrical Circuits 2	3	3	6	4	EE211	ECE223
SS	10	Understanding the Self	3	0	3	3	None	None
PE	104	Physical Education 4	2	0	2	2	PE103	None
<b>Total</b>			<b>21</b>	<b>12</b>	<b>33</b>	<b>25</b>		



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THIRD YEAR								
<i>First Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	314	Electronics 3 (Electronic Systems & Design)	3	3	6	4	ECE223	None
ECE	313	Communications 2 (Modulation and Coding Techniques)	3	3	6	4	ECE221	None
ECE	311	Signals, Spectra & Signal Processing	3	3	6	4	ECE220	None
ECE	310	Numerical Methods (Computer Methods in ECE)	2	3	5	3	ECE220	None
ECE	312	Logic Circuits & Switching Theory	3	3	6	4	ECE212	None
ES	303	Engineering Management	3	0	3	3	At least 3rd yr standing	None
<b>Total</b>			<b>17</b>	<b>15</b>	<b>32</b>	<b>22</b>		

THIRD YEAR								
<i>Second Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	324	Communications 3 (Data Communications)	3	3	6	4	ECE313	None
ECE	325	Communications 4 (Transmission Media, Antenna System and Design)	3	3	6	4	ECE313	ECE326
ECE	323	Microprocessor & Microcontroller Systems	3	3	6	4	ECE312	None
ECE	320	Methods of Research	3	0	3	3	3rd Year Standing	None
ECE	326	Wire and Wireless Communications	2	3	5	3	ECE 313	ECE325
ECE	322	Feedback & Control Systems	3	3	6	4	ECE223	None
<b>Total</b>			<b>17</b>	<b>15</b>	<b>32</b>	<b>22</b>		

THIRD YEAR								
<i>Summer</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	330	On the Job Training (280 HRS)	3	260 hrs	3	3	3rd year standing (Completed Major Subjects up to 3rd Year)	None
<b>Total</b>			<b>260 hrs</b>	<b>3</b>	<b>3</b>	<b>3</b>		



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FOURTH YEAR								
<i>First Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	415	Communications System Analysis and Design	2	3	5	3	ECE326, ECE324	None
ECE	416	ECE Technical Elective 1	2	6	8	4	ECE326, ECE324	None
ES	407	Free Elective (Emerging Foreign Languages)	3	0	3	3	None	None
ECE	411	Design 1 (Capstone Project 1)	0	3	3	1	ECE320, 4 <sup>th</sup> year standing	None
ES	302	Technopreneurship 101	3	0	3	3	ES303	None
SS	50	Rizal's Life, Works & Writings	3	0	3	3	None	None
FIL	1	Filipino 1	3	0	3	3	None	None
<b>Total</b>			<b>16</b>	<b>12</b>	<b>28</b>	<b>20</b>		

FOURTH YEAR								
<i>Second Semester</i>								
Course Code		Description	No. of Hours			Units	Pre-requisites	Co-requisites
			Lec	Lab	Total			
ECE	417	ECE Technical Elective 2	2	6	8	4	ECE326, ECE324	None
ECE	422	Design 2 (Capstone Project 2)	0	3	3	1	ECE411	None
ECE	424	Seminars/Colloquia	0	3	3	1	4th Year Standing	None
ES	401	Environmental Science & Engineering	3	0	3	3	CHEM10	None
ES	10	Science Technology & Society	3	0	3	3	None	None
SS	20	Readings in Philippine History	3	0	3	3	None	None
FIL	2	Filipino 2	3	0	3	3	None	None
<b>Total</b>			<b>14</b>	<b>12</b>	<b>26</b>	<b>18</b>		