

**CBCS SYLLABUS**  
**FOR**  
**THREE YEARS UNDER-GRADUATE COURSE**  
**IN**  
**ELECTRONIC SCIENCE (HONOURS)**  
*(w.e.f. 2017)*



**BANKURA UNIVERSITY**  
**BANKURA**  
**WEST BENGAL**  
**PIN 722155**

**STRUCTURE IN ELECTRONIC SCIENCE (HONOURS)****SEMESTER – I**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total	Lec.	Tu.	Pr.
SH/ELC/ 101/C-1	Basic Circuit Theory and Network Analysis	6	10	40	50			
SH/ELC / 102/C-2	Mathematics Foundation for Electronics	6	10	40	50			
SH/ELC / 103/GE-1	<b>Any one of the following</b>	6	10	40	50			
	a) Electronic Circuits and PCB Designing							
	b) Digital System Design							
	c) Communication Systems							
	d) Instrumentation							
ACSHP/104/AECC-1	Environmental Studies	4	10	40	50			
<b>Total in Semester – I</b>		<b>22</b>	<b>40</b>	<b>160</b>	<b>200</b>			

**SEMESTER – II**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total	Lec.	Tu.	Pr.
SH/ELC / 201/C-3	Semiconductor Devices	6	10	40	50			
SH/ELC / 202/C-4	Applied Physics	6	10	40	50			
SH/ELC / 203/GE-2	<b>Any one of the following</b>	6	10	40	50			
	a) Electronic Circuits and PCB Designing							
	b) Digital System Design							
	c) Communication Systems							
	d) Instrumentation							
ACSHP/204/AECC-2	English/Hind/MIL	2	10	40	50			
<b>Total in Semester – II</b>		<b>20</b>	<b>40</b>	<b>160</b>	<b>200</b>			

**SEMESTER –III**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total	Lec.	Tu.	Pr.
SH/ELC / 301/C-5	Electronic Circuits	6	10	40	50			
SH/ELC / 302/ C-6	Digital Electronics and Verilog	6	10	40	50			
SH/ELC /303/C-7	C Programming and Data Structures	6	10	40	50			
SH/ELC / 304/GE-3	<b>Any one of the following</b>	6	10	40	50			
	a) Electronic Circuits and PCB Designing							
	b) Digital System Design							
	c) Communication Systems							
SH/ELC / 305/SEC-1	<b>Any one of the following</b>	2	10	40	50			
	a) Programming with MATLAB							
	b) Design and Fabrication of Printed Circuit Boards							
<b>Total in Semester - III</b>		<b>26</b>	<b>50</b>	<b>200</b>	<b>250</b>			

**SEMESTER –IV**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total	Lec.	Tu.	Pr.
SH/ELC /401/C-8	Operational Amplifiers and Applications	6	10	40	50			
SH/ELC /402/C-9	Signals and Systems	6	10	40	50			
SH/ELC /403/C-10	Electronic Instrumentation	6	10	40	50			
SH/ELC /404/GE-4	<b>Any one of the following</b>	6	10	40	50			
	a) Electronic Circuits and PCB Designing							
	b) Digital System Design							
	c) Communication Systems							
SH/ELC / 405/SEC-2	<b>Any one of the following</b>	2	10	40	50			
	a) Programming with MATLAB							
	b) Design and Fabrication of Printed Circuit Boards							
<b>Total in Semester - IV</b>		<b>26</b>	<b>50</b>	<b>200</b>	<b>250</b>			

**SEMESTER – V**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total			
SH/ELC / 501/C-11	Microprocessors and Microcontrollers	6	10	40	50			
SH/ELC / 502/C-12	Electromagnetics	6	10	40	50			
SH/ELC / 503/DSE-1	<b>Any one of the following</b>	6	10	40	50			
	a) Power Electronics							
	b) Modern Communication Systems							
	c) Numerical Techniques							
SH/ELC / 504/DSE-2	<b>Any one of the following</b>	6	10	40	50			
	a) Transmission Lines, Antenna and Wave Propagation							
	b) Control Systems							
	c) Digital Signal Processing							
<b>Total in Semester – V</b>		<b>24</b>	<b>40</b>	<b>160</b>	<b>200</b>			

**SEMESTER – VI**

Course Code	Course Title	Credit	Marks			No. of Hours/Week		
			I.A.	ESE	Total	Lec.	Tu.	Pr.
SH/ELC / 601/C-13	Communication Electronics	6	10	40	50			
SH/ELC / 602/C-14	Photonics	6	10	40	50			
SH/ELC/ 603/DSE-3	<b>Any one of the following</b>	6	10	40	50			
	a) Power Electronics							
	b) Modern Communication Systems							
	c) Numerical Techniques							
SH/ELC/ 604/DSE-4	<b>Any one of the following</b>	6	10	40	50			
	a) Transmission Lines, Antenna and Wave Propagation							
	b) Control Systems							
	c) Digital Signal Processing							
<b>Total in Semester – VI</b>		<b>24</b>	<b>40</b>	<b>160</b>	<b>200</b>			

SH = Science Honours, ELC=Electronics, ACSHP=Arts Commerce Science Honours Pass, C= Core Course, AECC= Ability Enhancement Compulsory Course, SEC= Skill Enhancement Course, GE= Generic Elective, DSE= Discipline Specific Elective IA= Internal Assessment, ESE= End-Semester Examination, Lec.=Lecture, Tu.= Tutorial, and Prc.=Practical