

**B.Tech. INFORMATION TECHNOLOGY  
Regulations 2023**

**Semester I**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
	-	Induction Program	-	-	-	-	-	-
1	U23MA202	Calculus and Linear Algebra	BS	4	3	1	0	4
2	U23CS301	Problem Solving using C	ES	3	3	0	0	3
3	U23MC901	Heritage of Tamils	HSMC	1	1	0	0	1
<b>THEORY CUM PRACTICAL</b>								
4	U23HS181	Technical English	HS	4	2	0	2	3
5	U23PH281	Physics for Information Science	BS	5	3	0	2	4
6	U23IT381	Application Design and Development	ES	4	2	0	2	3
<b>PRACTICALS</b>								
7	U23GE351	Engineering Practices Laboratory	ES	2	0	0	2	1
8	U23CS351	Problem Solving using C Laboratory	ES	4	0	0	4	2
<b>PROFESSIONAL DEVELOPMENT</b>								
9	U23EM751	Soft Skills	EM	2	0	0	2	1
<b>Total</b>				<b>29</b>	<b>14</b>	<b>1</b>	<b>14</b>	<b>22</b>

**Semester II**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23CS401	Data Structures	PC	3	3	0	0	3
2	U23CS402	Object Oriented Programming using C++	PC	3	3	0	0	3
3	U23MC902	Tamils and Technology	HSMC	1	1	0	0	1
	U23NCC01	NCC Credit Course Level 1 <sup>#</sup>	-	2	2	0	0	2
<b>THEORY CUM PRACTICAL</b>								
4	U23HS1XX	Language Elective	HS	4	2	0	2	3
5	U23CS382	Python Programming	ES	5	3	0	2	4
6	U23EC381	Electronics and Microprocessors	ES	5	3	0	2	4
<b>PRACTICALS</b>								
7	U23CS451	Data Structures Laboratory	PC	4	0	0	4	2
8	U23CS452	Object Oriented Programming using C++ Laboratory	PC	2	0	0	2	1
<b>PROFESSIONAL DEVELOPMENT</b>								
9	U23EM752	Logical Thinking	EM	2	0	0	2	1
<b>Total</b>				<b>29</b>	<b>15</b>	<b>0</b>	<b>14</b>	<b>22</b>

#NCC Credit Course level 1 is offered for NCC students only.

### Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23MA204	Discrete Mathematics	BS	4	3	1	0	4
2	U23CS403	Design and Analysis of Algorithms	PC	3	3	0	0	3
3	U23CS404	Database Management Systems	PC	3	3	0	0	3
4	U23CS405	Java Programming	PC	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
5	U23EC382	Digital Principles and Computer Organization	ES	5	3	0	2	4
6	U23IT481	Software Engineering	PC	4	2	0	2	3
<b>PRACTICALS</b>								
7	U23CS453	Design and Analysis of Algorithms Laboratory	PC	4	0	0	4	2
8	U23CS454	Database Management Systems Laboratory	PC	2	0	0	2	1
9	U23CS455	Java Programming Laboratory	PC	2	0	0	2	1
<b>PROFESSIONAL DEVELOPMENT</b>								
10	U23EM753	Advanced Logical Thinking	EM	2	0	0	2	1
<b>MANDATORY COURSE</b>								
	U23MC904	Universal Human Values	MC	1	1	0	0	NC
<b>Total</b>				<b>33</b>	<b>18</b>	<b>1</b>	<b>14</b>	<b>25</b>

### Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23MA209	Probability and Statistics	BS	4	3	1	0	4
2	U23CS406	Full Stack Development	PC	3	3	0	0	3
3	U23IT401	Operating Systems and Virtualization	PC	3	3	0	0	3
4	U23OXXXX	Open Elective I*	OE	3	3	0	0	3
	U23NCC02	NCC Credit Course Level 2#	-	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
5	U23IT482	Embedded Systems and IoT	PC	5	3	0	2	4
6	U23AD481	Data Science	PC	5	3	0	2	4
<b>PRACTICALS</b>								
7	U23IT451	Operating Systems and Virtualization Laboratory	PC	2	0	0	2	1
8	U23CS456	Full Stack Development Laboratory	PC	2	0	0	2	1
<b>PROJECT WORK</b>								
9	U23IT651	Project using Design Thinking(Product/Software Development Life Cycle)	PW	2	0	0	2	1
<b>PROFESSIONAL DEVELOPMENT</b>								
10	U23EM754	Summer Internship	EM	-	-	-	-	1
<b>MANDATORY COURSE</b>								
	U23MC903	Environmental Science	MC	1	1	0	0	NC
<b>Total</b>				<b>30</b>	<b>19</b>	<b>1</b>	<b>10</b>	<b>25</b>

\* Open Elective - L T P C for Open Electives can either be 3 0 0 3 or 2 0 2 3

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**Semester V**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23IT402	Theory of Computation	PC	4	3	1	0	4
2	U23IT403	Cloud Computing	PC	3	3	0	0	3
3	U23AD401	Artificial Intelligence	PC	3	3	0	0	3
4	U23XXXXX	Professional Elective I	PE	3	3	0	0	3
5	U23OXXXX	Open Elective II*	OE	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
6	R23IT483	Data Communications and Networking	PC	5	3	0	2	4
<b>PRACTICALS</b>								
7	U23AD451	Artificial Intelligence Laboratory	PC	2	0	0	2	1
8	U23IT452	Cloud Computing Laboratory	PC	2	0	0	2	1
<b>Total</b>				<b>25</b>	<b>18</b>	<b>1</b>	<b>6</b>	<b>22</b>

**Semester VI**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23AM401	Machine Learning	ES	3	3	0	0	3
2	U23IT404	Cryptography and Cyber Security	PC	3	3	0	0	3
3	U23XXXXX	Professional Elective II*	PE	3	3	0	0	3
4	U23XXXXX	Professional Elective III*	PE	3	3	0	0	3
	U23NCC03	NCC Credit Course Level 3*	-	2	2	0	0	3
<b>THEORY CUM PRACTICAL</b>								
5	U23AD482	Big Data Analytics	ES	5	3	0	2	4
<b>PRACTICALS</b>								
6	U23AM451	Machine Learning Laboratory	ES	2	0	0	2	1
7	U23IT453	Cyber Security Laboratory	PC	2	0	0	2	1
<b>PROJECT WORK</b>								
8	U23IT652	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
<b>Total</b>				<b>23</b>	<b>15</b>	<b>0</b>	<b>8</b>	<b>19</b>

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**Semester VII**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23HS101	Principles of Management	HS	3	3	0	0	3
2	U23XXXXX	Professional Elective IV	PE	3	3	0	0	3
3	U23XXXXX	Professional Elective V	PE	3	3	0	0	3
<b>THEORY CUM PRACTICAL</b>								
4	R23IT484	BlockChain Technologies	PC	5	3	0	2	4
<b>PROJECT WORK</b>								
5	U23IT653	Project Work- Phase I	PW	6	0	0	6	3
<b>Total</b>				<b>20</b>	<b>12</b>	<b>0</b>	<b>8</b>	<b>16</b>

**Semester VIII**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
<b>THEORY</b>								
1	U23OXXXX	Open Elective III*	OE	3	3	0	0	3
<b>PROJECT WORK</b>								
2	U23IT654	Project Work-Phase II	PW	16	0	0	16	8
<b>Total</b>				<b>19</b>	<b>3</b>	<b>0</b>	<b>16</b>	<b>11</b>

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<b>SUMMARY</b>											
Sl. No.	Course Category	Credits per Semester								Credits	Credit %
		I	II	III	IV	V	VI	VII	VII I		
1	HS	3	3	-	-	-	-	3	-	9	5.55
2	BS	8	-	4	4	-	-	-	-	16	9.87
3	ES	9	8	4	-	-	8	-	-	29	17.90
4	PC	-	9	16	16	$\frac{1}{6}$	4	4	-	65	40.12
5	PE	-	-	-	-	3	6	6	-	15	9.25
6	OE	-	-	-	3	3	-	-	3	9	5.55
7	PW	-	-	-	1	-	1	3	8	13	8.02
8	EM	1	1	1	1	-	-	-	-	4	2.46
9	NC	-	-	✓	✓	-	-	-	-	-	-
10	MC	1	1	-	✓	-	-	-	-	2	1.23
<b>Total</b>		<b>22</b>	<b>22</b>	<b>25</b>	<b>25</b>	$\frac{2}{2}$	<b>19</b>	<b>16</b>	<b>11</b>	<b>162</b>	<b>100</b>