

STU/DRO/BOM/21/2022 – 23/ 638

16/09/2023

**Office Order**

**Order No.:** STU/DRO/BOM/21/2022 – 23/21/21.07, Dated: 17/08/2023

**Subject:** Revised structure of the scheme for B.E programs from AY 2024 – 25

With reference to the above subject and as per the resolution passed in the 21<sup>st</sup> meeting of the Board of Management held on 17/08/2023 to agenda 21.07, the university has Revised the structure of the scheme for B.E programs from AY 2024 – 25. The same was placed in the 21<sup>st</sup> Board of Management Meeting for approval.

The revised structure of the scheme for B.E programs from AY 2024 – 25 is approved in the Twenty First Board of Management (Section 21.07), of JSS Science and Technology University.

**Resolution:**

The Board approved the revised structure of the scheme for B.E programs from AY 2024 – 25.



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**Enclosure:**

- Revised structure of the scheme for B.E programs from AY 2024 – 25.

**Copy Submitted to:**

1. The Vice Chancellor, JSS STU – through secretary for kind information
2. Dean (Academic/Science/Management/Research)
3. The Controller of Examinations, JSS STU
4. The Finance Officer, JSS STU
5. The Principal
6. DR, DCOE, AR (Admn), AR (Examination), Assoc. Dean (Research/RAA)
7. Office Copy

AICTE recommended structure for 160 credits

Sl. No.	Category	Range of Total Credits (%) Suggested (AICTE)		AICTE Suggested Breakup of Credits (Mech)	AICTE Suggested Breakup of Credits (ECE)	AICTE Suggested Breakup of Credits (CSE)	AICTE Suggested Breakup of Credits (BT)	JSS STU Existing 175 credits	JSS STU Proposed 160 credits
		Minimum	Maximum						
1	Humanities and Social Sciences including Management courses	5	10	12*	15*	16*	15*	09	12
2	Basic Science courses	15	20	29*	23*	23*	19*	25	25
3	Engineering Science courses including Workshop, Drawing, basics of electrical/mechanical/computer etc.	15	20	27*	17*	29*	16*	20	24
4	Professional core courses	30	40	58*	61*	59*	43*	73	51
5	Professional Elective courses relevant to chosen specialization/branch	10	15	9*	12*	12*	18*	18	18
6	Open Elective Courses from other technical and/or emerging subjects	5	10	9*	12*	9*	18*	15	15
7	Project work, seminar and Internship in Industry or elsewhere	10	15	16*	20*	15*	18*	15	15
	Biological Science courses including laboratory			-	-	-	16*	-	-
8	Mandatory Courses (Environmental Sciences, Induction Program)	non -Credit		non -Credit	non -Credit	non -Credit	non -Credit	03	non -Credit
<b>Total</b>				<b>160*</b>	<b>160*</b>	<b>160*</b>	<b>163*</b>	<b>175</b>	<b>160</b>

\*: Minor variation is allowed

**A. Definition of Credit: -**

1 Hour Lecture (L) per week	1 credit
1 Hour Tutorial (T) per week	1 credit
1 Hour Practical (P) per week and 2 Hours Practical (Lab)/week	0.5 credits and 1 credit

**B. Requirement of credits: -**

For a student to be eligible to get Bachelor of Engineering (B.E) Degree should have a credit of 160.

A student will be eligible to get B E degree with Honours or additional Minor Engineering, if he/she completes an additional 15 to 18 credits.

**C. Structure of Undergraduate Engineering program (AICTE):**

Sl. No	Category	Suggested Breakup of Credits (Total 160)
1	Humanities and Social Sciences including Management courses	12
2	Basic Science courses	25*
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc	24*
4	Professional core courses	48*
5	Professional Elective courses relevant to chosen specialization/branch	18*
6	Open subjects – Electives from other technical and /or emerging subjects	18*
7	Project work, seminar and internship in industry or elsewhere	15*
8	Mandatory Courses [Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge]	(non-credit)
	Total	160*

\*Minor variation is allowed as per need of the respective disciplines.

  
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**JSS S&TU proposed semester wise credit distribution**


Semester	Credits
I	19
II	19
III	23
IV	22
V	25
VI	26
VII	13
VIII	13
<b>Total</b>	<b>160</b>

**Semester I:**

Sl No	Subject code	Course title	Category code	Teaching Department	QP Setting Dept.	Credits	Marks			Exam Duration in hours
							CIE	SEE	Total	
1	24MA110	Engineering Mathematics -I	BSC	MAT	MAT	4	40	60	100	03
2	24PH110	Engineering Physics	BSC	PHY	PHY	3	40	60	100	03
3	24ME110	Elements of Mechanical Engineering	ESC	ME	ME	3	40	60	100	03
4	24EE110	Elements of Electrical Engineering	ESC	EE	EE	3	40	60	100	03
5	24CS110	Introduction to programming	ESC	CS/IS	CS/IS	3	40	60	100	03
6	24PH120	Engineering Physics Laboratory	BSC	PHY	PHY	1.5	40	60	100	03
7	24CS120	Computational Programming Laboratory	ESC	CS/IS	CS/IS	1.5	40	60	100	03
8	24HU110	Kannada	HSMC	KA	KA	-	50	-	50	-
<b>Total</b>						<b>19</b>	<b>330</b>	<b>420</b>	<b>750</b>	

**Note:**

BSC: Basic Science Course; ESC: Engineering Science Course; HSMC: Humanity and Social Science and Management Course; PCCL: Professional Core Course Professional Core Course Laboratory

  
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## Semester-III

Sl. No	Subject code	Course title	Category code	Teaching Department	QP Setting Dept.	Credits	Marks			Exam Duration in hours
							CIE	SEE	Total	
1	24MA311/ 24MA312	Mathematics	BSC	Mathematics		3	40	60	100	03
	24MADIP311	Foundations engineering Mathematics II	BSC	Mathematics		-	00	50	50	03
2	24xx310	Professional Core / Engineering Sciences	PCC			4	40	60	100	03
3	24xx320		PCC			3	40	60	100	03
4	24xx330		PCC			3	40	60	100	03
5	24xx340	Universal Human Values (UHV)/Environmental Studies	PCC			3	40	60	100	03
6	24xx350		PCC			3	40	60	100	03
7	24HU361/ 24HU362	Universal Human Values (UHV)/Environmental Studies	HSMC			1	25	50	50	1.5
8	24xx37L		Lab 1	PCC			1.5	40	60	100
9	24xx38L	Lab 2	PCC			1.5	40	60	100	03
10	24SDA310	SDA	SDA			-	-	-	-	-
<b>Total</b>						<b>23</b>	<b>Total marks</b>	<b>750/</b>	<b>850</b>	

Note: BSC: Basic Science Course; ESC: Engineering Science Course; HSMC: Humanity and Social Science and Management Course; PCC: Professional Core Course Professional Core Course Laboratory

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Semester II:

Sl. No	Subject code	Course title	Category code	Teaching Department	QP Setting Dept.	Credits	Marks		Exam Duration in hours
							CIE	SEE	
1	24MA210	Engineering Mathematics -II	BSC	MAT	MAT	4	40	60	03
2	24CH110	CHEMISTRY	BSC	CHE	CHE	3	40	60	03
3	24ME110	EG&D	ESC	ME	ME	2.5	40	60	03
4	24EE110	EC	ESC	EC	EC	3	40	60	03
5	24CV110	Engg. Mechanics	ESC	CV	CV	3	40	60	03
6	24PH12L	CHE Lab	BSC	CHE	CHE	1.5	40	60	03
7	24HU120	Innovation & Design thinking	ESC	PD	PD	1	40	60	03
8	24HU130	Functional English	HSMC	HU	HU	1	40	60	1hr 30 Min
9	24SD110	SDA							1hr 30 Min
Total						19	330	420	750

Note:

BSC: Basic Science Course; ESC: Engineering Science Course; HSMC: Humanity and Social Science and Management Course; PCCCL: Professional Core Course Professional Core Course Laboratory

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Semester IV

Sl. No	Subject code	Course title	Category Code	Teaching Department	QP Setting Dept.	Credits	Marks		SEE Duration in hours		
							CIE	SEE			
1	24MA411/ 24MA412	Mathematics	BSC	Mathematics		3	40	60	100	03	
	24MADIP411	Foundations engineering Mathematics II	BSC			-	-	50	50	03	
2	24xx410	Professional Core / Engineering Sciences	PCC			4	40	60	100	03	
3	24xx420		PCC			3	40	60	100	03	
4	24xx430		PCC			3	40	60	100	03	
5	24xx440		PCC			3	40	60	100	03	
6	24xx450		PCC			3	40	60	100	03	
							-	50	-	50	-
7	24HU461/ 24HU462	UHV/Environmental Studies*	HSMC			-	40	60	100	03	
8	24xx47L	Laboratory 3	PCCL			1.5	40	60	100	03	
9	24xx48L	Laboratory 4	PCCL			1.5	40	60	100	03	
10	24SDA310	SDA	SDA			-	-	-	-	-	
<b>Total</b>							<b>22</b>	<b>Total Marks</b>	<b>750/ 850</b>		

Note: BSC: Basic Science Course; PCC: Professional Core Course; HSMC: Humanity and Social Science and Management Course;

PCCL: Professional Core Course Professional Core Course Laboratory, SDA: Skill Development Activities.

  
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Semester V:

Sl. No	Subject code	Course title	Category Code	Teaching Department	QP Setting Dept.	Credits	Marks			SEE Duration in hours	
							CIE	SEE	Total		
1	23xx510	Professional Core / Engineering Sciences	PCC			4	40	60	100	03	
2	23xx520		PCC			3	40	60	100	03	
3	23xx530		PCC			3	40	60	100	03	
4	23xx540	Professional Elective-I	PCC			3	40	60	100	03	
5	23xx55x		PEC			3	40	60	100	03	
6	23xx55x	Professional Elective-II	PEC			3	40	60	100	03	
7	23xx56x	Open Elective-I	OEC			3	40	60	100	03	
8	23HU510	Constitution of India	HSMC	Humanities		3	40	60	100	03	
9	23xx58L	Laboratory 5	PCCL			-	50	-	50	-	
10	23xx59L	Laboratory 6	PCCL			1.5	40	60	100	03	
<b>Total</b>						<b>25</b>	<b>40</b>	<b>60</b>	<b>100</b>	<b>03</b>	
<b>Note:</b> PCC: Professional Core Course, PEC: Professional Elective Course, OEC: Open Elective Course, HSMC: Humanity and Social Science and Management Course; PCCL: Professional Core Course Professional Core Course Laboratory							<b>25</b>	<b>40</b>	<b>60</b>	<b>100</b>	<b>03</b>

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Semester VI:

Sl. No	Subject code	Course title	Category Code	Teaching Department	QP Setting Dept.	Credits	Marks			SEE Duration in hours
							CIE	SEE	Total	
1	23xx610	Professional Core / Engineering Sciences	PCC			3	40	60	100	03
2	23xx620		PCC			3	40	60	100	03
3	23xx630		PCC			3	40	60	100	03
4	23xx64x	Professional Elective-III	PEC			3	40	60	100	03
5	23xx72x	Professional Elective-IV	PEC			3	40	60	100	03
6	23xx65x	Open Elective-II	OEC			3	40	60	100	03
7	23xx66x	Open Elective-III	OEC			3	40	60	100	03
8	23HU610	Constitution of India	HSMC	Humanities		0	50	-	50	-
9	23xx67L	Laboratory 7	PCCL			1.5	40	60	100	03
10	23xx68L	Laboratory 8	PCCL			1.5	40	60	100	03
11	23xx69P	Mini Project	PWC			2	50	--	50	--
<b>Total</b>						<b>26</b>	<b>Total marks</b>	<b>1000*</b>		

Note: L: Lecture/ Theory; T: Tutorial; P: Integrated Practical/ Practice; SDA: Skill Development Activities

PCC: Professional Core Course; PEC: Professional Elective Course; OEC: Open Elective Course; HSMC: Humanity and Social Science and Management Course; PCCL: Professional Core Course Laboratory  
 Open elective is open to all the students excluding the students of parent program  
 Team Size for Mini project can be between 2-4.

\*If constitution of India(22HU611) is offered in VI Semester the total marks will be 900 and if not offered the total marks will be 850.

  
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**Semester VII:**

Sl. No	Subject code	Course title	Category Code	Teaching Department	QP Setting Dept.	Credits	Marks			SEE Duration In hours
							CIE	SEE	Total	
1	23xx710	Management course	HSMC			3	40	60	100	03
3	23xx73x	Professional Elective-V	PEC			3	40	60	100	03
4	23xx74x	Open Elective-V	DEC			3	40	60	100	03
5	23xx76P	Project Work Phase - 1	PWC			2	50	--	50	--
6	23xx77P	Industrial training /Internship/ Technical Seminar	PWC			2	50	--	50	--
<b>Total</b>						<b>13</b>	<b>Total marks 400</b>			

**Note:** L: Lecture/ Theory; T: Tutorial; P: Integrated Practical/ Practice; SDA: Skill Development Activities; PEC: Professional Elective Course; OEC: Open Elective Course; PWC: Project Work Course  
 Open elective is open to all the students excluding the students of parent program  
 Team Size for Project can be between 2-4.  
 Students can take SWAYAM courses from 3rd semester to 6th semester and qualification certificate is to be submitted to the department before the commencement of 7th semester for considering in Professional elective IV\* offered in 7th Semester.  
 HOD shall prepare the list of courses offered under SWAYAM and it should be minimum of 12 weeks (12 weeks or 8+4 or 4+4+4 or any other combination).  
 Students who could not qualify/ complete the SWAYAM course from 3rd to 6th semesters should register for professional elective-V in 7th semester.  
 Open elective is open to all the students excluding the students of parent program.

  
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**Semester VIII:**

Sl. No	Subject code	Course title	Category Code	Teaching Department	QP Setting Dept	Credits	Marks			SEE Duration in hours
							CIE	SEE	Total	
1	23xx82x	Professional Elective-VI	PEC			3	40	60	100	03
2	23xx83P	Project work Phase - 2	PWC			10	40	60	100	03
<b>Total</b>							<b>13</b>	<b>Total marks</b>	<b>200</b>	

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