



JSPM's
RAJARSHI SHAHU COLLEGE OF ENGINEERING
TATHAWADE, PUNE-33
(An Autonomous Institute Affiliated to Savitribai Phule Pune University, Pune)



Structure
for
B. Tech. Information
Technology

w.e.f. Academic Year
2024-2025

(2023 Pattern)



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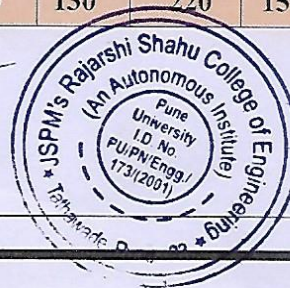
F. Y. B. Tech
Structure for Group 3
Information Technology Engineering

Academic Year -2023-2024 (Semester -I)

Course Code	Course	Teaching Scheme			Semester Examination Scheme of Marks						Total	Credit s
		TH	Tut	Lab	Theory			laboratory				Total
					ISE	MSE	ESE	ISE	MSE	ESE		
ES1203	Introduction to Statistics , Probability and Calculus	3	1	-	20	30	50	10	05	10	125	4
ES1207	Chemistry for Engineers	3	-	2	20	30	50	20	10	20	150	4
HS1202/ HS1203/ HS1204/ HS1205	Professional English Communication / English Language skills German/ Japanese	2	-	2	15	20	35	20	10	20	120	3
EE1201	Introduction to Electrical Engineering	2	1	2	20	30	50	20	10	20	150	4
HS1206	Science of Learning	-	-	2	-	-	-	20	10	20	50	1
ES1208	Introduction to Engineering and Engineering Products	-	-	2	-	-	-	20	10	20	50	1
CS1203	Fundamentals of Computer Programming	2	-	4	15	20	35	40	20	40	170	4
HS1201	Induction Training	Non-Credit course										
Total		12	2	14	90	130	220	150	75	150	815	21

Dr. S.M. Yadav
 H.O.D
 Engg. Sciences
 and Humanities

Dr. R.B. Joshi
 Dean Academics



Dr. R.K. Jain
 Director RSCOE,
 Pune



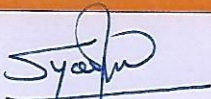
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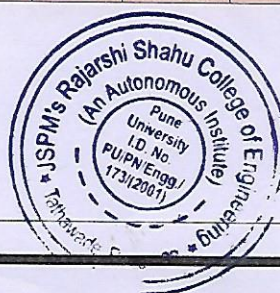
F. Y. B. Tech
Structure for Group 3
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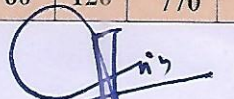
Academic Year -2023-2024 (Semester –II)

Course Code	Course	Teaching Scheme			Semester Examination Scheme of Marks						Total	Credits
		TH	Tut	Lab	Theory			laboratory				Total
					ISE	MSE	ESE	ISE	MSE	ESE		
ES1205	Statistical Methods	3	1	-	20	30	50	10	5	10	125	4
ES1206	Physics for Engineers	3	-	2	20	30	50	20	10	20	150	4
ES1204	Discrete Mathematics	3	1	-	20	30	50	10	5	10	125	4
EC1201	Basic Electronics Engineering	2	-	2	15	20	35	20	10	20	120	3
ME1203	Product visualization	0	0	2	-	-	-	20	10	20	50	1
CS1204	Object Oriented Programming	2	-	4	15	20	35	40	20	40	170	4
HS1208	Indian Knowledge Systems	1	-	-	30	-	-	-	-	-	30	1
Total		14	02	10	120	130	220	120	60	120	770	21


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S. Y. B. Tech (Information Technology)
Academic Year -2024-2025 (Semester –III)
(2023 Pattern)

Course	Course Code	Course	Teaching Scheme				Credit	Examination Scheme			Total Marks	Ownership
			L	T	P	Hr		ISE	MSE	ESE		
PCC	IT2201T	Computer Organization and Architecture	3	-	-	3	3	20	30	50	100	IT
PCC	IT2202T	Software Engineering and Design	3	-	-	3	3	20	30	50	100	IT
PCC	IT2203T	Fundamentals of Data Structure	3	-	-	3	3	20	30	50	100	IT
PCC	IT2203L	Fundamentals of Data Structure Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
PCC	IT2204T	Operating Systems	3	-	-	3	3	20	30	50	100	IT
PCC	IT2204L	Operating Systems Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
HSSM	ES2206T	Environmental Science and Engineering	2	-	-	2	2	20	30	50	100	Humanities
PCC	IT2205L	Programming Lab-I: Python	-	-	4	4	2	ISCE: 60		40	100	IT
PCC	IT2207T	Innovation and Entrepreneurship	2	-	-	2	2	20	30	50	100	IT
CEP	HS2206L	Soft Skills	-	-	2	2	1	ISCE: 30		20	50	Humanities
PCC	IT2206L	Design Thinking	-	-	2	2	1	ISCE: 30		20	50	IT
Total			16	-	12	28	22	-		-	900	

Dr. N. M. Ranjan

Dr. N. M. Ranjan
BoS Chairman

Dr. Ram Joshi

Dr. Ram Joshi
Dean of Academics



Dr. Rakesh K. Jain

Dr. Rakesh K. Jain
Director



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S. Y. B. Tech (Information Technology)
Academic Year -2024-2025 (Semester –IV)
(2023 Pattern)

Course	Course Code	Course	Teaching Scheme				Credit	Examination Scheme			Total Marks	Ownership
			L	T	P	Hr		ISE	MSE	ESE		
ESC	ES2203T	Calculus and Transforms	3	-	-	3	3	20	30	50	100	Mathematics
PCC	IT2208T	Formal Language and Automata Theory	3	-	-	3	3	20	30	50	100	IT
PCC	IT2209T	Data Structures and Algorithms	3	-	-	3	3	20	30	50	100	IT
Skill Course (VSEC)	IT2209L	Data Structures and Algorithms Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
PCC	IT2210T	Computer Network	3	-	-	3	3	20	30	50	100	IT
MDM		Multi-Disciplinary Minor-I	3	-	-	3	3	20	30	50	100	Other department
HSSM (VSEC)	HS2203T	Universal Human Values and Ethics	2	-	-	2	2	20	30	50	100	Humanities
HSSM (VEC)	IT2211L	Web Technology Lab	-	-	4	4	2	ISCE: 60		40	100	IT
Skill Course (VSEC)	IT2212L	Programming Lab II: Advanced Python	-	-	2	2	1	ISCE: 30		20	50	IT
CC	IT2213L	Co-curricular Course-II	-	-	2	2	1	ISCE: 50		-	50	IT
Total			17	-	10	27	22	-		-	850	

Abbreviations:

L – Lecture, T – Tutorial, P – Practical, Hr – Hours, C – Credits, TuT – Tutorial, ISE – In Semester Evaluation, MSE – Mid Semester Evaluation, ESE – End Semester Evaluation

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Dr. Ram Joshi
Dean of Academics



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Director

Notes:

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

For Lab courses: There shall be continuous assessment (ISCE consists of ISE and MSE). The ESE is a separate head of passing.

For Tutorial: Assessment shall be ISE of the respective course.

List of Exit Courses after completion of Semester III and IV

1. Exit option is available for students those who have earned the total 88 credits at the End of fourth Semester.
2. Student who wants to avail the exit option after second year have to earn additional 6-8 credits from the list of courses shown below.
3. These courses student have to complete within summer vacation after 2nd Year.
4. After fulfilment as mentioned in 1 to 3 above, Students can earn **UG-Diploma/ Diploma-Eng** and same will be issued by the Institute.

Sr. No.	Course code	Name	Credits
1.	EX-IT2201	Certified Python Developer	2
2.	EX-IT2202	Certified Network Engineer	2
3.	EX-IT2203	Certified Web Developer	2
4.	EX-IT2204	Certified Data Structure Engineer	2



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T. Y. B. Tech (Information Technology)
Academic Year -2025-2026 (Semester –V)
 (Level 5.5 - B.Voc./ B.Sc. Engg) -Semester V
(2023 Pattern)

Course	Course Code	Course	Teaching Scheme				Credit C	Examination Scheme			Total Marks	Ownership
			L	T	P	Hr		ISE	MSE	ESE		
PCC	IT3201T	Database Management System	3	-	-	3	3	20	30	50	100	IT
PCC	IT3201L	Database Management System Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
PCC	IT3202T	Design and Analysis of Algorithm	3	-	-	3	3	20	30	50	100	IT
PCC	IT3202L	Design and Analysis of Algorithm Laboratory	-	-	2	2	1	ISCE-30		20	50	IT
MDM		Multi-Disciplinary Minor-II	3	-	-	3	3	20	30	50	100	Other department
MDM		Multi-Disciplinary Minor-II Laboratory	-	-	2	2	1	ISCE: 30		20	50	Other department
OE	ITO3201T	Open Elective I	3	-	-	3	3	20	30	50	100	Other department
PEC	IT3203T	Professional Elective-I	3	-	-	3	3	20	30	50	100	IT
PEC	IT3203L	Professional Elective-I Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
Skill Course (VSEC)	IT3204L	Programming Lab III (Java Programming)	-	-	4	4	2	ISCE: 50		50	100	IT
CC	IT3205L	Co-curricular Course	-	-	2	2	1	ISCE: 30		20	50	Respective Department
Total			15	-	14	29	22	-		-	850	


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 Director

Professional Elective I		Professional Elective I Lab	
Course	Course Name	Course	Course Name
IT3203T-A	Artificial Intelligence	IT3203L-A	Artificial Intelligence Lab
IT3203T-B	Cyber Security and Privacy(MOOC) https://onlinecourses.nptel.ac.in/noc25_cs116/preview	IT3203L-B	Cyber Security and Privacy Lab
IT3203T-C	Cloud Computing (MOOC) https://onlinecourses.nptel.ac.in/noc25_cs107/preview	IT3203L-C	Cloud Computing Lab
IT3203T-D	UI and UX Design	IT3203L-	UI and UX Design Lab



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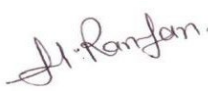
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T. Y. B. Tech (Information Technology)
Academic Year -2025-2026 (Semester –VI)
 (Level 5.5 - B.Voc./ B.Sc. Engg) -Semester VI
(2023 Pattern)

Course	Course Code	Course	Teaching Scheme				Credit C	Examination Scheme			Total Marks	Ownership
			L	T	P	Hr		ISE	MSE	ESE		
PCC	IT3206T	Machine Learning	3	-	-	3	3	20	30	50	100	IT
PCC	IT3206L	Machine Learning Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
MDM		Multi-Disciplinary Minor-III	3	-	-	3	3	20	30	50	100	Other department
OE	ITO3202T	Open Elective	3	-	-	3	3	20	30	50	100	Other department
PEC	IT3207T	Professional Elective-II	3	-	-	3	3	20	30	50	100	IT
PEC	IT3207L	Professional Elective-II Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
PEC	IT3208T	Professional Elective-III	3	-	-	3	3	20	30	50	100	IT
PEC	IT3208L	Professional Elective-III Laboratory	-	-	2	2	1	ISCE: 30		20	50	IT
Skill Course (VSEC)	IT3209L	Programming Lab-IV: Advanced Java Programming	-	-	4	4	2	ISCE: 50		50	100	IT
Project	IT3210L	Engineering Innovation and Society-I (Project-I)	-	-	4	4	2	ISCE: 50		50	100	IT
	Total		15	-	14	29	22	-		-	850	

Professional Elective II		Professional Elective II Lab	
Course Code	Course Name	Course Code	Course Name
IT3207T-A	Natural Language Processing (MOOC) https://onlinecourses.nptel.ac.in/noc25_cs51/preview	IT3207L-A	Natural Language Processing Lab
IT3207T-B	Ethical Hacking (MOOC) https://onlinecourses.nptel.ac.in/noc25_cs142/preview	IT3207L-B	Ethical Hacking Lab
IT3207T-C	Internet of Things & Industry 4.0	IT3207L-C	Internet of Things & Industry 4.0 Lab
IT3207T-D	Advanced Web Technology	IT3207L-D	Advanced Web Technology Lab


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Professional Elective III		Professional Elective III Lab	
Course Code	Course Name	Course Code	Course Name
IT3208T-A	Computer Vision (MOOC) https://onlinecourses.nptel.ac.in/noc25_cs143/preview	IT3208L-A	Computer Vision Lab
IT3208T-B	Digital Forensics (MOOC) https://onlinecourses.swayam2.ac.in/nou25_cs05/preview	IT3208L-B	Digital Forensics Lab
IT3208T-C	Cloud Security and Governance	IT3208L-C	Cloud Security and Governance Lab
IT3208T-D	DevOps Fundamentals	IT3208L-D	DevOps Fundamentals Lab

Abbreviations:

L – Lecture, T – Tutorial, P – Practical, Hr – Hours, C – Credits, TuT – Tutorial, ISE – In Semester Evaluation, MSE – Mid Semester Evaluation, ESE – End Semester Evaluation

Notes:

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

For Lab courses: There shall be continuous assessment (ISCE consists of ISE and MSE). The ESE is a separate head of passing.

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List of Exit Courses after completion of Semester V and VI

1. Exit option is available for students those who have earned the total 132 credits at the End of sixth Semester.
2. Student who wants to avail the exit option after third year have to earn additional 8 credits from the list of courses shown below.
3. These courses student have to complete within summer vacation after 3rd Year.
4. After fulfilment as mentioned in 1 to 3 above, Students can earn **B.Voc./ B.Sc. Engg** and same will be issued by the Institute.

Sr. No.	Course code	Name	Credits
1.	EX-IT3201	Certified Database Engineer	2
2.	EX-IT3202	Certified Java Programmer	2
3.	EX-IT3203	Certified Machine Learning Engineer	2
4.	EX-IT3204	Certified Security Engineer	2



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Multidisciplinary Minor
Structure
(2023 Pattern)
W. E. F. 2024-25

NOTE: Student should choose any one specialization given by the department and complete all the courses (14 credits) under the specialization to earn 170 Credits.



**JSPM's
RAJARSHI SHAHU COLLEGE OF ENGINEERING
TATHAWADE, PUNE-33**



Multidisciplinary Courses List (Credits: 14 Credits) [2023 Pattern]

				Teaching scheme					Mark s		Eligible Departments							
Course	Se m	Course Code	Course Title	L	T	P	Hr	C		Offered by Dept	Comp	IT	CSBS	E&Tc	Mech	Civil	Elect	A&R
COMPUTER ENGINEERING																		
MDM I	IV	CSM2201T	Introduction to Object Oriented Programming	3	-	-	3	3	100	Computer For Syllabus click here	N	N	N	Y	Y	Y	Y	Y
MDM II	V	CSM3201T	Data Structures	3	-	-	3	3	100									
MDM II	V	CSM3201L	Data Structures Laboratory	-	-	2	2	1	50									
MDM III	VI	CSM3202T	Database Management Systems	3	-	-	3	3	100									
MDM IV	VII	CSM4201T	Computer Network	3	-	-	3	3	100									
MDM IV	VII	CSM4201L	Computer Network Laboratory	-	-	2	2	1	50									
E &Tc																		
MDM I	IV	ECM2201T	Digital Design & Computer Organization	3	-	-	3	3	100	E&Tc For Syllabus click here	Y	Y	Y	N	Y	Y	Y	Y
MDM II	V	ECM3201T	Microcontroller	3	-	-	3	3	100									
MDM II	V	ECM3201L	Microcontroller Laboratory	-	-	2	2	1	50									
MDM III	VI	ECM3202T	Internet of Things	3	-	-	3	3	100									
MDM IV	VII	ECM4201T	Embedded Systems	3	-	-	3	3	100									
MDM IV	VII	ECM4201L	Embedded Systems Laboratory	-	-	2	2	1	50									

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Course	Sem	Course Code	Course Title	L	T	P	Hr	Cs	Mark	Offered by Dept	Comp	IT	CSBS	E&Tc	Mech	Civil	Elect	A&R
Information Technology																		
MDM I	IV	ITM2201T	Data Structures Essentials	3	-	-	3	3	100	IT For Syllabus click here								
MDM II	V	ITM3201T	Fundamentals of Operating Systems	3	-	-	3	3	100									
MDM II	V	ITM3201L	Fundamentals of Operating Systems Laboratory	-	-	2	2	1	50									
MDM III	VI	ITM3202T	Computer Network	3	-	-	3	3	100									
MDM IV	VII	ITM4201T	Digital Forensic and Cyber Laws	3	-	-	3	3	100									
MDM IV	VII	ITM4201L	Digital Forensic and Cyber Laws laboratory	-	-	2	2	1	50									
CSBS																		
MDM I	IV	CBM2201T	Business Information System	3	-	-	3	3	100	CSBS For Syllabus click here								
MDM II	V	CBM3201T	Data Analytics for Business	3	-	-	3	3	100									
MDM II	V	CBM3201L	Data Analytics for Business Laboratory	-	-	2	2	1	50									
MDM III	VI	CBM3202T	Marketing Management and Marketing Reserach	3	-	-	3	3	100									
MDM IV	VII	CBM4201T	IT Project Management	3	-	-	3	3	100									
MDM IV	VII	CBM4201L	IT Project Management Laboratory	-	-	2	2	1	50									

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JSPM's
Rajarshi Shahu College of Engineering,
Pune-411033



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Date: 09-07-2025

Circular: Guidelines for offering the Open and Professional Electives through Swayam – w.e.f. Sem-I-AY-2025-26

PREFACE:

The NEP promotes a student-centric and outcome-oriented educational framework. Under this, the integration of Professional Core and Open Elective subjects into the curriculum aligns with the vision and objectives of the National Education Policy (NEP) 2020.

The **Professional Electives** courses have been instrumental in developing domain-specific knowledge, technical proficiency, and problem-solving capabilities. They have laid a strong foundation for understanding the key principles and innovations in our chosen discipline, thereby fostering critical thinking, creativity, and a research-oriented mindset.

Complementing this, the **Open Electives** subjects have allowed us to explore areas beyond our core specialization, encouraging a broader academic perspective and a multidisciplinary approach. This flexibility has enabled us to connect different domains of knowledge, improve communication and collaboration skills, and develop a more well-rounded personality— hallmarks of the NEP's holistic learning model.

This academic journey has not only enhanced our intellectual and practical capabilities or developed skill abilities but also prepared us to contribute meaningfully to society as responsible and skilled professionals.

STATEMENT OF PURPOSE:

In accordance with the transformative vision of the **National Education Policy (NEP) 2020**, the implementation of **Professional Core** and **Open Elective** courses follows a structured and flexible approach that promotes multidisciplinary learning, academic freedom, and holistic student development. The procedure is outlined as follows:

1. Curriculum Design:

- **Professional Electives** courses are designed to provide in-depth knowledge and skills specific to a student's major or discipline. These courses are reviewed and approved by the Board of Studies and Academic Council to ensure relevance, industry alignment, and academic rigor.
- **Open Electives** courses are developed to promote interdisciplinary learning, enabling students to explore subjects beyond their core area. Departments across disciplines propose electives that are approved for inclusion in the open elective pool after academic review.

2. Credit Structure and Flexibility

- The credit framework is designed in line with **NEP's flexible curricular structure**, with students required to complete a defined number of credits in both professional core and open elective areas.
- A **Choice-Based Credit System (CBCS)** is adopted, allowing students the freedom to choose courses based on their interests, career goals, and academic progression.

3. Course Offerings:

- Under the **Professional Electives** Two options are available for the students:
 1. To opt the course in off-line mode which consists of Theory (3 credits) & Lab (1 credit).
 2. To select a course from the given list through Swayam platform which consists of credit transfer directly from Swayam (3 credits) & In-Sem evaluation through informed tools viz. seminar report / presentations / mini project / research article etc (1 credit)
- Under **Open Electives**, students will be provided with the flexibility to opt for the courses through Swayam platform which consists of credit transfer directly from Swayam (3 credits). The Open Electives will be offered from following two areas:
 1. Humanities and Social Sciences (HSS)
 2. Management and Finance (MF)

The list of the various courses under the HSS and MF areas, four options will be given in each in order to select the open electives. Refer Annexure for detail list.

4. Faculty Allocation and Resources

- Qualified faculty are assigned to teach the **Professional Electives in offline mode** based on expertise, ensuring quality delivery. Teaching is supported with learning materials through ERP system to enhance the engagement and inclusivity.
- A Mentor will be assigned to all the courses opted by the students through **online Swayam platform, for both Professional & Open Electives**. Mentor will keep the track about the learning and submission of the timely assignments. He/ she will also facilitate the students by providing an additional learning material through ERP system.

5. Assessment and Evaluation:

- Continuous Internal Evaluation (CIE) and End Semester Examination (ESE) will be done for the offline **Professional Electives** as per institutional norms.
- Following are the guidelines for the Assessment and Evaluation for **Professional Electives & Open Electives** courses opted through online Swayam platform:
 1. Students have to appear for End Term proctored examination for all the SWAYAM based credit courses are conducted by National Testing Agency (NTA) and National Programme on Technology Enhanced Learning (NPTEL) in their designated centres across the country.
 2. Students who will fail the end Term Exam conducted by NTA and NPTEL will have to appear for ESE conducted by the institute. However, this will be treated as re-exam which will carry the # mark on the marksheet against the course.
 3. These examinations will be conducted during the current semester along with the other courses.
 4. The examinations will be conducted in the subsequent two semesters.
 5. The students who have submitted a minimum of 75% of the assignments and quizzes on SWAYAM will only be allowed to appear for the end term examination conducted by the institute.
 6. The assignments submitted on SWAYAM portal will carry the 30 % weightage & End-Term Examination will carry 70% weightage.
 7. To pass in a SWAYAM Course, total 40 % marks are essential among which a minimum of 40% passing marks (28/70) Marks in the end term examination are must.
 8. The fees for appearing the final exam of Swayam is to be borne (paid) by the student.

ANNEXURE: Lists of Open Electives – I -Sem-V- Sem-I-AY-2025-26

Credits: 03 Marks: 100

A) Humanities and Social Sciences (HSS)

Course	Course Code	Course Title	Link of the course	Duration in weeks	Start Date	End Date	Enrollment Ends	Exam Registration Ends	Exam Date
OE1	HSO3201T-A	English Language for Competitive Exams	https://onlinecourses.nptel.ac.in/noc25_hs137/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	01 Nov 2025 IST
OE1	HSO3201T-B	Public Speaking	https://onlinecourses.nptel.ac.in/noc25_hs160/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	26 Oct 2025 IST
OE1	HSO3201T-C	Applied Positive Psychology	https://onlinecourses.nptel.ac.in/noc25_hs145/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	25 Oct 2025 IST
OE1	HSO3201T-D	Patent Law for Engineers and Scientists	https://onlinecourses.nptel.ac.in/noc25_hs120/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	25 Oct 2025 IST

B) Management and Finance (MF)

Course	Course Code	Course Title	Link of the course	Duration in weeks	Start Date	End Date	Enrollment Ends	Exam Registration Ends	Exam Date
OE1	HSO3201T-E	E-Business	https://onlinecourses.nptel.ac.in/noc25_mg134/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	02 Nov 2025 IST
OE1	HSO3201T-F	Business to Business Marketing (B2B)	https://onlinecourses.nptel.ac.in/noc25_mg110/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	26 Oct 2025 IST
OE1	HSO3201T-G	Managerial Skills for Interpersonal Dynamics	https://onlinecourses.nptel.ac.in/noc25_mg91/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	26 Oct 2025 IST
OE1	HSO3201T-H	Product and Brand Management	https://onlinecourses.nptel.ac.in/noc25_mg96/preview	12	21 Jul 2025	10 Oct 2025	28 Jul 2025	15 Aug 2025	26 Oct 2025 IST


(Dr. A. M. Badadhe)
 Dean, Academics




(Dr. S. P. Bhosle)
 Director



JSPM's
RAJARSHI SHAHU COLLEGE OF ENGINEERING
TATHAWADE, PUNE-33
(An Autonomous Institute Affiliated to Savitribai Phule Pune University, Pune)



Structure for Minor in Emerging Area “Machine Learning for Cyber Security”

w. e. f. Academic Year 2024-2025
(2023 Pattern)

Dr. N. M. Ranjan
BoS Chairman

Dr. Ram Joshi
Dean of Academics



Dr. Rakesh K. Jain
Director



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Department of Information Technology
Minor in Emerging Area
Machine Learning for Cyber Security
Structure (Effective from 2024-25)

Course Code	Course	Teaching Scheme				Credit	Examination Scheme			TW	Total Marks
		L	T	P	Hr	C	ISE	MSE	ESE		
	S. Y. Sem IV										
ITH2201T	Foundations of Cyber Security	3	-	-	3	3	20	30	50	-	100
ITH2201L	Foundations of Cyber Security Laboratory	-	-	2	2	1	ISCE: 30		20	-	50
	T. Y. Sem V										
ITH3201T	Machine Learning and Cyber Security	3	-	-	3	3	20	30	50	-	100
ITH3201L	Machine Learning and Cyber Security Laboratory	-	-	2	2	1	ISCE: 30		20	-	50
	TY Sem VI										
ITH3202T	Machine Learning for Penetration Testing	3	1	-	3	4	20	30	50	-	100
	B.Tech. Sem VII										
ITH4201T	Software Security	3	-	-	3	3	20	30	50	-	100
ITH4202L	Mini Project	-	-	6	6	3	ISCE: 50		50	50	150
Total		12	1	10	22	18					650

Abbreviations:

L – Lecture, T – Tutorial, P – Practical, Hr – Hours, C – Credits, TuT – Tutorial, ISE – In Semester Evaluation, MSE – Mid Semester Evaluation, ESE – End Semester Evaluation

Notes:

Eligibility for admission to the UG Bachelor's Degree with Double Minor: Minimum CGPA/CPI of 7.5 or minimum 75% after second semester for UG Bachelor's Degree.

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing. For Lab courses: There shall be continuous assessment (ISCE consists of ISE and MSE). The ESE is a separate head of passing.

Dr. N. M. Ranjan
BoS Chairman

Dr. Ram Joshi
Dean of Academics



Dr. Rakesh K. Jain
Director