Savitribai Phule Pune University
Board of Studies - Mechanical and Automobile Engineering
Undergraduate Program - Automation and Robotics (2019 pattern)

Course Code	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks						Credit			
		TH	PR	TUT	ISE	ESE	TW	PR	OR	TOTAL	TH	PR	TUT	TOTAL
Semester-V														
302521	Design of Robot Elements	3	2	--	30	70	--	--	25	125	3	1	--	4
302522	Robot Kinematics and Dynamics	3	2	--	30	70	--	50	--	150	3	1	--	4
302523	Computer Aided Engineering and Manufacturing	3	2	--	30	70	--	50	--	150	3	1	--	4
302524	Signal Processing and Conditioning	3	2	--	30	70	25	--	--	125	3	1	--	4
302525	Elective-I	3	--	--	30	70	--	--	--	100	3	--	--	3
302526	Robot Programming Laboratory	--	2	--	--	--	25	--	--	25	--	1	--	1
302047	Skill Development	--	2	--	--	--	25	--	--	25	--	1	--	1
302048	Audit Course-V$	--	--	--	--	--	--	--	--	--	--	--	--	--
		15	12	--	150	350	75	100	25	700	15	5	1	21
Semester-VI														
302527	Sensors and Vision Systems in Robots	3	2	--	30	70	--	50		150	3	1	--	4
302528	Artificial Intelligence in Robots	3	2	--	30	70	--	50	--	150	3	1	--	4
302529	Modelling and Simulation	3	2	--	30	70	--	50	--	150	3	1	--	4
302530	Elective-II	3	--	--	30	70	--	--	--	100	3	--	--	3
302531	Metrology and Quality Control in Automation	--	2	--	--	--	25	--	--	25	--	1	--	1
302532	Computer Aided Digital Manufacturing Laboratory	--	2	--	--	--	25	--	--	25	--	1	--	1
302055	Internship/Mini Project*	--	4	--	--	--	100	--	--	100	--	4	--	4
302056	Audit Course-VI$	--	--	--	--	--	--	--	--	--	--	--	--	--
		12	14	--	120	280	150	150	--	700	12	9	--	21

Elective-I		Elective-II	
302525-A	Advanced Forming and Joining Processes	302530-A	Machining Science and Technology
302525-B	Optimization Techniques	302530-B	Maintenance and Safety Engineering

Abbreviations: TH: Theory, **PR**: Practical, **TUT**: Tutorial, **ISE**: In-Semester Exam, **ESE**: End-Semester Exam, **TW**: Term Work, **OR**: Oral

*Internship is to be completed after semester 5 and before commencement of semester 6 of at least 4 to 6 weeks; and it is to be assessed and evaluated in semester 6.

Instructions:
- Practical/Tutorial must be conducted in FOUR batches per division only.
- Minimum number of Experiments/Assignments in PR/Tutorial shall be carried out **as mentioned in the syllabi** of respective courses.
- Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of **continuous evaluation.**

Note: Interested students of TE (Automation and Robotics) can opt for any one of the audit course from the list of audit courses prescribed by BOS (Mechanical and Automobile Engineering)

$ Audit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point and CGPA