

**GUJARAT TECHNOLOGICAL UNIVERSITY****Syllabus for Bachelor of Vocation (B.Voc), 3rd Semester****Branch: Automobile Servicing****Subject Name: Automobile Workshop-I****Subject Code: 1130105****With effective
from academic
year 2018-19**

Teaching Scheme			Credits	Examination Marks				Total Marks
L	P	OJT		Theory		Tutorial/ Practical		
			University exams (ESE)	Progressive Assessment (PA)	External Practical /viva Exam(ESE)	Internal evaluation Practical /viva Exam(PA)		
-	2	-	2	0	-	30	20	50

Course Content: Practical

Sr. No.	Content	Hours
1.	Engine tuning: Meaning and scope of engine tuning. Necessity of engine tuning, Service data of Maruti: Alto, WagonR, Swift (Petrol & Diesel); Hyundai: Santro, Ford: Figo; Volkswagen: Polo; Chevrolet: Spark. Engine analysis and tuning with the help of diagnostic computer, Diesel engine injection timing checking	12
2.	Wheel Balance: Reasons of wheel imbalance, Effect of wheel imbalance on stability of vehicle. Static and dynamic balancing, Wheel balancing by the application of weights, Wheel Alignment: Meaning of wheel alignment, Various angles-camber, caster, KPI & toe - and their effect on steering stability, General values of popular Indian vehicles, Wheel alignment on computerized wheel aligner	12
3.	Measurement of Exhaust Pollution by various analyzers such as Four Gas Analyzer, Smoke meter, Nox analyzer	06
4.	Use of Headlight aligner, Wheel aligner, automotive oscilloscope	06
5.	Servicing: Meaning and scope of servicing, Items attended to in servicing of a vehicle. Servicing a vehicle, Focusing and alignment of head lights	06
	Total Hours	42

Reference Books:

1. Engine Service: Gary Lewis
2. Various Car's Manuals