

# LESSON PLAN

**DEPARTMENT OF MECHATRONICS ENGINEERING, ITT, CHOUDWAR**

**SUBJECT: MACHINE TOOL TECHNOLOGY** Periods: 4 per week

**SEMESTER: 3rd**

**NAME OF FACULTY: LEEZA MISHRA**

**ACADEMIC YEAR.2021-2022**

**No. of weeks: 15**

Week	Class Day	Theory / Practical Topics
1st	1 <sup>st</sup>	Brief discussion about Safety, Safety in workshop, Personal Safety causes of accidents and remedies for it.
	2 <sup>nd</sup>	Importance Of safety
	3 <sup>rd</sup>	Discuss about Hand tools and devices
	4 <sup>th</sup>	Discuss about Hand tools and devices
2 <sup>nd</sup>	1 <sup>st</sup>	Discuss about Bench Layouts
	2 <sup>nd</sup>	Discuss about Types of vies
	3 <sup>rd</sup>	Discuss about Types and specification of files
	4 <sup>th</sup>	Discuss about Hack shaw frame and blades
3 <sup>rd</sup>	1 <sup>st</sup>	Discuss about Types of chisel and angles
	2 <sup>nd</sup>	Discuss about Hammer and types of hammer
	3 <sup>rd</sup>	Discuss about scraper and it's types
	4 <sup>th</sup>	Discuss about fitting operation like chipping, filling, scrapping
4 <sup>th</sup>	1 <sup>st</sup>	Discuss about fitting operation like grinding, marking, sawingdrilling,
	2 <sup>nd</sup>	Discuss about fitting operation like Reaming, dieling, tapping
	3 <sup>rd</sup>	Explaining in theory of chip removal
	4 <sup>th</sup>	Explaining in theory of orthogonal and oblique cutting
5 <sup>th</sup>	1 <sup>st</sup>	Explaining in theory of speed feed & depth of cut.
	2 <sup>nd</sup>	Discuss about Cutting tool material & it's properties.
	3 <sup>rd</sup>	Discuss about cutting tool of Geometry of single point cutting tool
	4 <sup>th</sup>	Explaining Importance of cutting fluids, types and its application
6 <sup>th</sup>	1 <sup>st</sup>	Introduction to drilling machine, Types
	2 <sup>nd</sup>	Specification of drilling machine
	3 <sup>rd</sup>	Drilling machine mechanism operation discussing
	4 <sup>th</sup>	Discuss about Work holding
7 <sup>th</sup>	1 <sup>st</sup>	Discuss about tool holding devices
	2 <sup>nd</sup>	Drills—Nomenclature of twist drill, types, material, size designation as per ISI
	3 <sup>rd</sup>	sharpening of drills, counter boring & counter sinking.
	4 <sup>th</sup>	Reamers and Taps—Types, importance ,advantages and disadvantages
8 <sup>th</sup>	1 <sup>st</sup>	Reamers and Taps operation
	2 <sup>nd</sup>	Introduction to Lathe, types of Lathe, parts of Lathe-Bed, Headstock, Tailstock carriage,& Lead screw
	3 <sup>rd</sup>	Lathe accessories & attachments
	4 <sup>th</sup>	Explaining Driving mechanism
9 <sup>th</sup>	1 <sup>st</sup>	Explaining feed mechanism
	2 <sup>nd</sup>	Explaining thread cutting
	3 <sup>rd</sup>	Lathe operations—Plain, step, , facing etc.
	4 <sup>th</sup>	Lathe operations--- taper turning & it is calculation
10 <sup>th</sup>	1 <sup>st</sup>	Solving problems of taper turning operation

