GANDHI SCHOOL OF ENGINEERING
BHABANDHA, BERHAMPUR
SESSION PLAN
4TH SEMESTER, BRANCH-MECHANICAL(GROUP 1)
TH-2 MANUFACTURING TECHNOLOGY

Name of the Faculty – ER. SANJAY KUMAR BISHOYEE						
Topics to be taken						
SL NO & CHAPTER	**No. of Periods assigned by SCTE & VT**	**Details of the topics**	**PLANNED DATE**	**Details of the topics**	**ACTUAL DATE**	**Remarks**
1. Tool Materials	**4**	1.1 Composition of various tool materials 1.2 Physical properties& uses of such tool materials.	**18.01.2024 TO 25.01.2024**	1.1 Composition of various tool materials 1.2 Physical properties& uses of such tool materials.	**18.01.2024** **19.01.2024** **24.01.2024** **25.01.2024**	
2. Cutting Tools	**6**	2.1 Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer 2.3 Turning tool geometry and purpose of tool angle 2.5 Machining process parameters (Speed, feed and depth of cut) 2.6 Coolants and lubricants in machining and purpose	**30.01.2024 TO 7.02.2024**	2.1 Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer 2.3 Turning tool geometry and purpose of tool angle 2.5 Machining process parameters (Speed, feed and depth of cut) 2.6 Coolants and lubricants in machining and purpose	**30.01.2024** **31.01.2024** **1.02.2024** **2.02.2024** **6.02.2024** **7.02.2024**	

3. Lathe Machine	**8**	3.1 Construction and working of lathe and CNC lathe • Major components of a lathe and their function • Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining, parting off, facing, knurling) • Safety measures during machining 3.2 Capstan lathe • Difference with respect to engine lathe • Major components and their function • Define multiple tool holders 3.3 Turret Lathe • Difference with respect to capstan lathe • Major components and their function 3.4 Draw the tooling layout for preparation of a hexagonal bolt &bush	**8.02.2024 TO 22.02.2024**	3.1 Construction and working of lathe and CNC lathe • Major components of a lathe and their function • Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining, parting off, facing, knurling) • Safety measures during machining 3.2 Capstan lathe • Difference with respect to engine lathe • Major components and their function • Define multiple tool holders 3.3 Turret Lathe • Difference with respect to capstan lathe • Major components and their function 3.4 Draw the tooling layout for preparation of a hexagonal bolt &bush	**8.02.2024** **9.02.2024** **13.02.2024** **15.02.2024** **16.02.2024** **20.02.2024** **21.02.2024** **22.02.2024**	

4. Shaper	**6**	4.1 Potential application areas of a shaper machine 4.2 Major components and their function 4.3 Explain the automatic able feed mechanism 4.4 Explain the construction &working of tool head 4.5 Explain the quick return mechanism through sketch 4.6 State the specification of a shaping machine.	**23.02.2024 TO 6.03.2024**	4.1 Potential application areas of a shaper machine 4.2 Major components and their function 4.3 Explain the automatic able feed mechanism 4.4 Explain the construction &working of tool head 4.5 Explain the quick return mechanism through sketch 4.6 State the specification of a shaping machine.	**23.02.2024** **27.02.2024** **28.02.2024** **29.02.2024** **1.03.2024** **6.03.2024**	
5. Planning Machine	**6**	5.1 Application area of a planer and its difference with respect to shaper 5.2 Major components and their functions 5.3 The table drive mechanism 5.4 Working of tool and tool support 5.5 Clamping of work through sketch.	**7.03.2024 TO 14.03.2024**	5.1 Application area of a planer and its difference with respect to shaper 5.2 Major components and their functions 5.3 The table drive mechanism 5.4 Working of tool and tool support 5.5 Clamping of work through sketch.	**7.03.2024** **12.03.2024** **13.03.2024** **14.03.2024**	

6. Milling Machine	**8**	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine 6.2 Explain work holding attachment 6.3 Construction & working of simple dividing head, universal dividing head 6.4 Procedure of simple and compound indexing 6.5 Illustration of different indexing methods	**15.03.2024 TO 27.03.2024**	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine 6.2 Explain work holding attachment 6.3 Construction & working of simple dividing head, universal dividing head 6.4 Procedure of simple and compound indexing 6.5 Illustration of different indexing methods	**15.03.2024** **19.03.2024** **20.03.2024** **21.03.2024** **22.03.2024** **27.03.2024**	
7. Slotter	**6**	7.1 Major components and their function 7.2 Construction and working of slotter machine 7.3 Tools used in slotter	**28.03.2024 TO 4.04.2024**	7.1 Major components and their function 7.2 Construction and working of slotter machine 7.3 Tools used in slotter	**28.03.2024** **2.04.2024** **3.04.2024** **4.04.2024**	

8. Grinding	**6**	8.1 Significance of grinding operations 8.2 Manufacturing of grinding wheels 8.3 Criteria for selecting of grinding wheels 8.4 Specification of grinding wheels with example Working of □ Cylindrical Grinder □ Surface Grinder □ Centreless Grinder	**5.04.2024 TO 12.04.2024**	8.1 Significance of grinding operations 8.2 Manufacturing of grinding wheels 8.3 Criteria for selecting of grinding wheels 8.4 Specification of grinding wheels with example Working of □ Cylindrical Grinder □ Surface Grinder □ Centreless Grinder	**5.04.2024** **9.04.2024** **10.04.2024** **12.04.2024**	

9. Internal Machining operations	**6**	Classification of drilling machines 9.1 Working of □ Bench drilling machine □ Pillar drilling machine □ Radial drilling machine 9.2 Boring □ Basic Principle of Boring □ Different between Boring and drilling 9.3 Broaching □ Types of Broaching(pull type, push type) □ Advantages of Broaching and applications	**16.04.2024 TO 23.04.2024**	Classification of drilling machines 9.1 Working of □ Bench drilling machine □ Pillar drilling machine □ Radial drilling machine 9.2 Boring □ Basic Principle of Boring □ Different between Boring and drilling 9.3 Broaching □ Types of Broaching(pull type, push type) □ Advantages of Broaching and applications	**16.04.2024** **18.04.2024** **19.04.2024** **23.04.2024**	
10. Surface finish, lapping	**4**	10.1 Definition of Surface finish 10.2 Description of lapping & explain their specific cutting.	**24.04.2024 TO 26.04.2024**	10.1 Definition of Surface finish 10.2 Description of lapping & explain their specific cutting.	**24.04.2024** **25.04.2024** **26.04.2024**	

Sanjay Kumar Bishoyee .

CLASS COVERED BY

HOD
Mechanical Engg.
Gandhi School of Engg.
Berhampur (Gm.)

HOD, MECHANICAL

GANDHI SCHOOL OF ENGINEERING
BHABANDHA, BERHAMPUR
SESSION PLAN
4TH SEMESTER, BRANCH-MECHANICAL(GROUP 2)
TH-2 MANUFACTURING TECHNOLOGY

Name of the Faculty – PROF. SUNIL KUMAR SABAT						
Topics to be taken				**Actually topic taken**		
SL NO & CHAPTER	**No. of Periods assigned by SCTE & VT**	**Details of the topics**	**PLANNED DATE**	**Details of the topics**	**ACTUAL DATE**	**Remarks**
1. Tool Materials	**4**	1.1 Composition of various tool materials 1.2 Physical properties& uses of such tool materials.	**18.01.2024 TO 24.01.2024**	1.1 Composition of various tool materials 1.2 Physical properties& uses of such tool materials.	**18.01.2024** **19.01.2024** **22.01.2024** **24.01.2024**	
2. Cutting Tools	**6**	2.1 Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer 2.3 Turning tool geometry and purpose of tool angle 2.5 Machining process parameters (Speed, feed and depth of cut) 2.6 Coolants and lubricants in machining and purpose	**25.01.2024 TO 5.02.2024**	2.1 Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer 2.3 Turning tool geometry and purpose of tool angle 2.5 Machining process parameters (Speed, feed and depth of cut) 2.6 Coolants and lubricants in machining and purpose	**25.01.2024** **29.01.2024** **31.01.2024** **1.02.2024** **2.02.2024** **5.02.2024**	

3. Lathe Machine	**8**	3.1 Construction and working of lathe and CNC lathe • Major components of a lathe and their function • Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining, parting off, facing, knurling) • Safety measures during machining 3.2 Capstan lathe • Difference with respect to engine lathe • Major components and their function • Define multiple tool holders 3.3 Turret Lathe • Difference with respect to capstan lathe • Major components and their function 3.4 Draw the tooling layout for preparation of a hexagonal bolt &bush	**7.02.2024 TO 21.02.2024**	3.1 Construction and working of lathe and CNC lathe • Major components of a lathe and their function • Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining, parting off, facing, knurling) • Safety measures during machining 3.2 Capstan lathe • Difference with respect to engine lathe • Major components and their function • Define multiple tool holders 3.3 Turret Lathe • Difference with respect to capstan lathe • Major components and their function 3.4 Draw the tooling layout for preparation of a hexagonal bolt &bush	**7.02.2024** **8.02.2024** **9.02.2024** **12.02.2024** **15.02.2024** **16.02.2024** **19.02.2024** **21.02.2024**	

4. Shaper	**6**	4.1 Potential application areas of a shaper machine 4.2 Major components and their function 4.3 Explain the automatic able feed mechanism 4.4 Explain the construction &working of tool head 4.5 Explain the quick return mechanism through sketch 4.6 State the specification of a shaping machine.	**22.02.2024 TO 1.03.2024**	4.1 Potential application areas of a shaper machine 4.2 Major components and their function 4.3 Explain the automatic able feed mechanism 4.4 Explain the construction &working of tool head 4.5 Explain the quick return mechanism through sketch 4.6 State the specification of a shaping machine.	**22.02.2024** **23.02.2024** **26.02.2024** **28.02.2024** **29.02.2024** **1.03.2024**	
5. Planning Machine	**6**	5.1 Application area of a planer and its difference with respect to shaper 5.2 Major components and their functions 5.3 The table drive mechanism 5.4 Working of tool and tool support 5.5 Clamping of work through sketch.	**4.03.2024 TO 11.03.2024**	5.1 Application area of a planer and its difference with respect to shaper 5.2 Major components and their functions 5.3 The table drive mechanism 5.4 Working of tool and tool support 5.5 Clamping of work through sketch.	**4.03.2024** **6.03.2024** **7.03.2024** **11.03.2024**	

6. Milling Machine	**8**	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine 6.2 Explain work holding attachment 6.3 Construction & working of simple dividing head, universal dividing head 6.4 Procedure of simple and compound indexing 6.5 Illustration of different indexing methods	**13.03.2024 TO 21.03.2024**	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine 6.2 Explain work holding attachment 6.3 Construction & working of simple dividing head, universal dividing head 6.4 Procedure of simple and compound indexing 6.5 Illustration of different indexing methods	**13.03.2024** **14.03.2024** **15.03.2024** **18.03.2024** **20.03.2024** **21.03.2024**	
7. Slotter	**6**	7.1 Major components and their function 7.2 Construction and working of slotter machine 7.3 Tools used in slotter	**22.03.2024 TO 3.04.2024**	7.1 Major components and their function 7.2 Construction and working of slotter machine 7.3 Tools used in slotter	**22.03.2024** **27.03.2024** **28.03.2024** **3.04.2024**	

8. Grinding	**6**	8.1 Significance of grinding operations 8.2 Manufacturing of grinding wheels 8.3 Criteria for selecting of grinding wheels 8.4 Specification of grinding wheels with example Working of □ Cylindrical Grinder □ Surface Grinder □ Centreless Grinder	**4.04.2024 TO 10.04.2024**	8.1 Significance of grinding operations 8.2 Manufacturing of grinding wheels 8.3 Criteria for selecting of grinding wheels 8.4 Specification of grinding wheels with example Working of □ Cylindrical Grinder □ Surface Grinder □ Centreless Grinder	**4.04.2024** **5.04.2024** **8.04.2024** **10.04.2024**	

9. Internal Machining operations	**6**	Classification of drilling machines 9.1 Working of □ Bench drilling machine □ Pillar drilling machine □ Radial drilling machine 9.2 Boring □ Basic Principle of Boring □ Different between Boring and drilling 9.3 Broaching □ Types of Broaching(pull type, push type) □ Advantages of Broaching and applications	**11.04.2024 TO 18.04.2024**	Classification of drilling machines 9.1 Working of □ Bench drilling machine □ Pillar drilling machine □ Radial drilling machine 9.2 Boring □ Basic Principle of Boring □ Different between Boring and drilling 9.3 Broaching □ Types of Broaching(pull type, push type) □ Advantages of Broaching and applications	**11.04.2024** **12.04.2024** **15.04.2024** **18.04.2024**	
10. Surface finish, lapping	**4**	10.1 Definition of Surface finish 10.2 Description of lapping& explain their specific cutting.	**19.04.2024 TO 24.04.2024**	10.1 Definition of Surface finish 10.2 Description of lapping& explain their specific cutting.	**19.04.2024** **22.04.2024** **24.04.2024**	

S.K. Sabat

CLASS COVERED BY

HOD
Mechanical Engg.
Gandhi School of Engg.
Berhampur (Gm.)

HOD, MECHANICAL