| AMP LESSION PLAN | | |
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| Discipline : Mechanical Engg. | Semester : 6th | Name of the Teaching Faculty : MISS: DHAGYASHREE PATRA |
| Course : Advance manufacturing process | No.of days/Per weeks Class Alloted Weeks :4 | Semester :6th 16th JAN 2024 To Date: 26 APR 2024 |
| Weeks | Class day | Theory |
| 3RD(JAN-2024) | 1st | Modern Machining Processes Introduction and comparison with traditional machining. |
| | 2nd | Ultrasonic Machining: principle,Description of equipment,working procedure of USM. |
| | 3rd | Ultrasonic Machining: principle,Description of equipment,working procedure of USM. |
| | 4th | MRR,Advantages and Disadvantages of of USM |
| 4TH(JAN-2024) | 1st | Electric Discharge Machining: Principle, Description of equipment |
| | 2nd | Electric Discharge Machining: Principle, Description of equipment |
| | 3rd | working procedure of EDM |
| | 4th | Wire cut EDM: Principle, Description of equipment, |
| 1ST(FEB-2024) | 1st | controlling parameters;applications, advantages ,disadvantages |
| | 2nd | Abrasive Jet Machining: principle, description of equipment,working procedures |
| | 3rd | Material removal rate,applications and advantages ,disadvantages |
| | 4th | Laser Beam Machining: principle, description of equipment,working procedure of LBM |
| 2ND(FEB-2024) | 1st | Laser Beam Machining: principle, description of equipment,working procedure of LBM |
| | 2nd | advantages and Limitations of ECM |
| | 3rd | Electro Chemical Machining: principle, description of equipment |
| | 4th | working procedure of ECM,Material removal rate |
| 3RD(FEB-2024) | 1st | advantages and Limitations of ECM |
| | 2nd | Advantages and Limitations of ECM, |
| | 3rd | Plasma Arc Machining – principle, description of equipment,working procedure of PAM |
| | 4th | Plasma Arc Machining – principle, description of equipment,working procedure of PAM |
| 4TH(FEB-2024) | 1st | Material removal rate,Process parametersperformance characterization,applications and advantages ,disadvantages |
| | 2nd | Electron Beam Machining - principle, description of equipment,working procedure of EBM |
| | 3rd | Electron Beam Machining - principle, description of equipment,working procedure of EBM |
| | 4th | performance characterization,applications and advantages ,disadvantages |
| 1ST(MAR-2024) | 1st | Processing of plastics,Moulding processes: |
| | 2nd | Injection moulding,Compression moulding,Transfer moulding |
| | 3rd | Extruding; |
| | 4th | Calendering. |
| | 1st | Fabrication methods |

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| 2ND(MAR-2024) | 2nd | Sheet forming |
| | 3rd | Blow moulding, |
| | 4th | Laminating plastics (sheets, rod& tubes) |
| 3RD(MAR-2024) | 1st | Additive Manufacturing Process:Introduction, Need for Additive Manufacturing |
| | 2nd | Fundamentals of Additive Manufacturing |
| | 3rd | Advantages and Limitations of AM, |
| | 4th | Classification of AM process |
| 4TH(MAR-2024) | 1st | Fundamental Automated Processes |
| | 2nd | Distinction between AM and CNC.other related technologies. |
| | 3rd | Application –Application in Design, Aerospace Industry, Automotive Industry, |
| | 4th | Jewelry Industry, Arts and Architecture. RP Medical and Bioengineering Applications. |
| 1ST(APR-2024) | 1st | INTERNAL ASSESSMENT |
| | 2nd | INTERNAL ASSESSMENT |
| | 3rd | Web Based Rapid Prototyping Systems |
| | 4th | Concept of Flexible manufacturing process |
| 2ND(APR-2024) | 1st | Concept of Flexible manufacturing process |
| | 2nd | concurrent engineering |
| | 3rd | rapid prototyping processes. |
| | 4th | concurrent engineering |
| 3RD(APR-2024) | 1st | General elements of SPM |
| | 2nd | Principles of SPM design. |
| | 3rd | Maintenance of Machine Tools-types |
| | 4th | Maintenance of Machine Tools-types |
| 4TH(APR-2024) | 1st | Repair cycle analysis, Repair complexity |
| | 2nd | Maintenance manual, Maintenance records, |
| | 3rd | Housekeeping |
| | 4th | Introduction to Total Productive Maintenance (TPM). |

Patra
16/01/2024