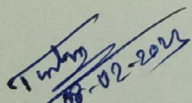


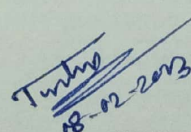
## LESSON PLAN

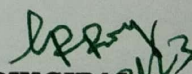
| Discipline: <b>Metallurgy Engineering</b>                      |                  |                         | Semester: <b>6<sup>th</sup> semester</b>           | Name of the Teaching Faculty: <b>Mr Tushar Dasguptanayak</b>                  |
|--|------------------|-------------------------|--|---|
| Subject: <b>Mechanical Metallurgy</b><br>Sub code: <b>Th.2</b> |                  |                         | No of days /week class<br>allotted: <b>04/week</b> | Semester from Date: <b>14/02/2023 to 23/05/2023</b><br>No of weeks: <b>15</b> |
| Month  | Week             | No of periods available | Class Day  | Theory topics to be covered   |
| FEBRUARY   | 1 <sup>st</sup>  | 03 P                    | 14-02-2023   | Explain basic behaviour of metal  |
|  |                  |                         | 15-02-2023   | Explain type of dislocation   |
|  |                  |                         | 16-02-2023   | Explain slip and twinning   |
|  | 2 <sup>nd</sup>  | 04P                     | 21-02-2023   | Explain deformation of metal elastic and plastic                              |
|  |                  |                         | 22-02-2023   | Explain yielding criteria   |
|  |                  |                         | 23-02-2023   | Derive critically resolved shear stress                                       |
|  |                  |                         | 25-02-2023   | Explain deformation of polycrystalline aggregates                             |
|  | 3 <sup>rd</sup>  | 01P                     | 28-02-2023   | Explain strengthening mechanism   |
| MARCH  | 4 <sup>th</sup>  | 03 P                    | 01-03-2023   | Explain the role of grain boundary strengthening                              |
|  |                  |                         | 02-03-2023   | Explain hall petch equation   |
|  |                  |                         | 04-03-2023   | Explain yield point phenomena   |
|  | 5 <sup>th</sup>  | 02P                     | 09-03-2023   | Explain strain aging  |
|  |                  |                         | 10-03-2023   | Explain solid solution strengthening from fine particles                      |
|  | 6 <sup>th</sup>  | 04P                     | 14-03-2023   | Explain fiber strengthening   |
|  |                  |                         | 15-03-2023   | Explain martensitic strengthening   |
|  |                  |                         | 16-03-2023   | Explain strain hardening  |
|  |                  |                         | 17-03-2023   | Explain baushinger's effect   |
|  | 7 <sup>th</sup>  | 04P                     | 21-03-2023   | Explain fundamental of metalworking   |
|  |                  |                         | 22-03-2023   | Explain type of metal workingprocess  |
|  |                  |                         | 23-03-2023   | Explain hot working of metal and alloys                                       |
|  |                  |                         | 25-03-2023   | Explain cold working of metal and alloys                                      |
|  | 8 <sup>th</sup>  | 03P                     | 28-03-2023   | Explain advantage of hot and coldworking                                      |
|  |                  |                         | 29-03-2023   | EXPLAIN disadvantage of hot and coldworking                                   |
|  |                  |                         | 31-03-2023   | <b>Monthly Test</b>   |
| APRIL  | 9 <sup>th</sup>  | 04P                     | 04-04-2023   | Explain recovery & Explain recrystallization                                  |
|  |                  |                         | 05-04-2023   | Explain grain growth  |
|  |                  |                         | 06-04-2023   | Explain introduction of rollingprocess  |
|  |                  |                         | 08-04-2023   | Explain principle of rolling process  |
|  | 10 <sup>th</sup> | 04P                     | 11-04-2023   | Explain type of rolling process   |
|  |                  |                         | 12-04-2023   | Compare between hot rolling and cold rolling                                  |
|  |                  |                         | 13-04-2023   | Explain type of roll pass-open pass   |
|  |                  |                         | 15-04-2023   | Explain box pass  |



|     |                  |     |            |  |
|-----|------------------|-----|------------|--|
| MAY | 11 <sup>th</sup> | 04P | 18-04-2023 | Explain different types of rolling defects   |
|     |                  |     | 19-04-2023 | Explain the remedies for rolling defects   |
|     |                  |     | 20-04-2023 | Explain introduction of forging  |
|     |                  |     | 22-04-2023 | Explain the type of forging process  |
|     | 12 <sup>th</sup> | 04P | 25-04-2023 | Explain the process of forging   |
|     |                  |     | 26-04-2023 | Explain the properties of forged products  |
|     |                  |     | 27-04-2023 | Explain the defect of forged products  |
|     |                  |     | 29-04-2023 | Explain the Remedies for defects   |
|     | 13 <sup>th</sup> | 04P | 02-05-2023 | Explain the introduction of extrusion  |
|     |                  |     | 03-05-2023 | Explain application of extrusion, principle of extrusion   |
|     |                  |     | 04-05-2023 | Explain the defect of extruded products  |
|     |                  |     | 06-05-2023 | Explain the manufacturing of seamless pipes  |
|     | 14 <sup>th</sup> | 05P | 09-05-2023 | Explain the advantages disadvantage of extrusion, Application of Extrusion, Explain the introduction of wire drawing                   |
|     |                  |     | 10-05-2023 | Explain application of wire drawing, Explain the defect of wire drawing  |
|     |                  |     | 11-05-2023 | Explain the advantages of wire drawing, Explain disadvantage of wire drawing, Explain basic knowledge of forming methods               |
|     |                  |     | 13-05-2023 | Explain concept of deep drawing, Explain the principle of deep drawing   |
|     | 15 <sup>th</sup> | 04P | 16-05-2023 | Explain the introduction of sheet metal forming, Explain advantage of sheet metal forming, Explain disadvantage of sheet metal forming |
|     |                  |     | 17-05-2023 | Explain application of sheet metal forming, Explain the bending shearing, Explain the banking, metal working, metal forming            |
|     |                  |     | 18-05-2023 | Revision   |
|     |                  |     | 20-05-2023 | Revision   |

  
**PREPARED BY**  
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