**Lesson Plan**

Name of the Teacher Poonam Bansal

Class Msc 2nd (Maths)

Name of Subject with Code MTHCE-2306: Advanced Mechanics of solids

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| **Week1,**  |
| 01-08-18 | Introduction of the paper |
| 02-08-18 | two dimensional problems:plane stress and its expression  |
| 03-08-18 | generalised plane stress |
| 04-08-18 | Airy stress function |
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| **Week 2,** |  |
| 06-08-18. test of plane stress n generalised plane stress |
| 07-08-18 | test discussion |
| 08-08-18 | general soln of biharmonic eqn  |
| 09-08-18 | stress in terms of analytic fun |
| 10-08-18 | displacement in terms of analytic fun |
| 11-08-18 | test of stress and displacement in terms of analytic fun |
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| **Week 3,**  |
| 13-08-18 | structure of functions Phi (z) and phsi (z) |
| 14-08-18 | first B.V.P |
| 16-08-18 | 2nd B.V.P |
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| **Week 4,** |  |
| 20-08-18. existance and uniqueness of soln  |
| 21-08-18 | basic problems for finite ,infinite,circular region |
| 22-08-18 | test of unit 3rd |
| 23-08-18 | test discussion |
| 24-08-18 |  |
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| **Week 5,**  |  |
| 27-08-18 | problem soln of students |
| 28-08-18 | introduction to. unit 1st  |
| 29-08-18 | torsion :meaning of torque ,torsion ,bending |
| 30-08-18 | torsion of cylindrical shaft  |
| 31-08-18 | torsion of cylindrical bars with circular cross-section and other than circular cross-section  |
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| **Week 6,** |  |
| 01-09-18 | test of above two articles |
| **Week 7,** |  |
| 04-09-18 | test discussion |
| 05-09-18 | torsional rigidity and it's expression |
| 06-09-18 | neumann's B.V.P |
| 07-09-18. torsion and stress fun |
| 08-09-18 | lines of shearing stress |
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| **Week8,** |  |
| 10-09-18 | simple problems related to equilateral triangle |
| 11-09-18 | grooves problem |
| 12-09-18 | torsion of rectangular beam |
| 13-09-18 | torsion of triangular prism |
| 14-09-18 | test of torsion of rectangular beam and triangular prism |
| **Week 9,**  |
| 17-09-18 | test of section 1st  |
| 18-09-18 | discussion of test |
| 19-09-18 | intro to unit 2nd  |
| 20-09-18 | torsion problems through conformal mapping |
| 21-09-18 | torsion problem analogy |
| 22-09-18 | torsion of hollow beam |
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| **Week 10,** |
| 24-09-18 | torsion of anisotropic beam |
| 26-09-18 | bending of circular beam |
| 27-09-18 | bending of ellpitic beam |
| 28-09-18 | bending of rectangular beam |
| 29-09-18 | test of above topic of unit 2nd |
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| **Week 11,**  |
| 1-10-18 | test. discussion |
| 3-10-18 | torsion of cylinder by lateral loads |
| 4-10-18 | full test of unit 2nd |
| 5-10-18 | test discussion  |
| 6-10-18 | introduction to unit 4th |
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| **Week 12,**  |
| 8-10-18 | 3-D problems  |
| 9-10-18 | general soln |
| 10-10-18 | concentrated forces |
| 11-10-18 | deformation by normal loads |
| 12-10-18 | the problems of boussinesq |
| 13-10-18 | elastic sphere |
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| **Week 13,**  |
| 15-10-18 | pressure,harmonic s,equillibrium |
| 15-10-18 | interagration methods |
| 16-10-18 | thermoelastic problems |
| 17-10-18 | vibration in ekastic solids |
| 18-10-18 | test of unit 4th |
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| **Week 14,** |  |
| 22-10-18. test discussion  |
| 23-10-18 | revision of stess and generalised stress |
| 25-10-18 | revision of airy stress fun |
| 26-10-18 | test of above articles |
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| **Week 15,** |  |
| 29-10-18 | revision of stress and displacement in terms of analytic functions  |
| 30-10-18. problem solving day |  |
| 31-10-18 | test of above article |
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| **Week 16,** |  |
| 02-11-18 | test discussion  |
| 03-11-18 | revision of structure of fun phi (z) n phsi (z) |
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| **Week 17**  |
| 05-11-18 | test of above article |
| 10-11-18 | revision of torsion concept  |
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| **Week 18** |  |
| 05-11-18 | revision of torsion of cylindrical shaft n bars |
| 10-11-18 | revision of torsional rigidity |
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| **Week 19** |  |
| 12-11-18 | torsion of rectangular prism and elliptical cylinder |
| 13-11-18 | test of above articles |
| 14-11-18 | test discussion |
| 15-11-18 | revision of torsion of anisotropic beam |
| 16-11-18 | revision of bending of circular,ellpitic,rectangular beam |
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| **Week 20** |  |
| 19-11-18 | test of above articles |
| 20-11-18 | full test of unit 2nd  |
| 21-11-18 | revision of unit 4 |
| 22-11-18 | soln of students doubts |
| 24-11-18 | test of unit 4 |
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