

Determination of bending moments and shear forces in beams (6 weeks)

- Moment distribution method (Week 7)
- Conjugate beam method (Week 8)
- Slope deflection method (Week 9)
- Influence lines (Week 11)
- The use of Macaulay brackets (Week 12)
- Three moments equation (Week 13)

Analysis of Arches (Week 14)

- Three pinned arches
- Two pinned arches
- Symmetrical arches
- Unsymmetrical arches

References

- Analysis of indeterminate structures by Alan Williams (McMillan books)
- Structural theory and analysis by J.D. Todd (McMillan books)
- Principles of structural mechanics by A.O. Adekola (Lagos University press).
- Theory of Structures by R.S. Khurmi (S. Chand & Co.)
- Structural analysis using virtual work by F. Thompson and G.G. Haywood (Chapman & Hall).

Assessments

- Week 10 class quiz
- Week 15 Revision
- Assignments =10%
- Practical = 15%
- Quiz = 5%
- Examination =70%
- Total =100%