# Walchand College of Engineering

(Government Aided Autonomous Institute)

## Curriculum Structure and Credit System

## Second Year M. Tech. (Civil - Structural Engineering)

**Applicable from A.Y. 2026-27 and Onwards**

## Option A

### Semester 3 A

| Sr. No. | Course Particulars | | | Course Delivery | | | | | Credits | Assessments | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | Code | Name | L | T | I | P | Hrs | | ISE/LA1 | MSE/LA2 | ESE | Ext. |
| 1 | PR | 7ST691 | Dissertation Phase-I | 0 | 0 | 0 | 24 | 24 | 12 | 30 | 30 | 40 | OE |
| 2 | PE | Refer list | Online/NPTEL/Swayam Course/In-house | 3 | 0 | 0 | 0 | 3 | 3 | 20 | 30 | 50 | -- |
| 3 | PE | Refer list | Online/NPTEL/Swayam Course/In-house | 3 | 0 | 0 | 0 | 3 | 3 | 20 | 30 | 50 | -- |
| | | | Totals | 6 | 0 | 0 | 24 | 30 | 18 | | | | |

### Semester 4 A

| Sr. No. | Course Particulars | | | Course Delivery | | | | | Credits | Assessments | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | Code | Name | L | T | I | P | Hrs | | ISE/LA1 | MSE/LA2 | ESE | Ext. |
| 1 | PR | 7ST692 | Dissertation Phase-II | 0 | 0 | 0 | 34 | 34 | 17 | 30 | 30 | 40 | OE |
| 2 | PC | 7ST645 | Internship | 0 | 0 | 0 | 4 | 4 | 2 | 0 | 0 | 100 | -- |
| 3 | PC | 7ST646 | Techno-Socio Activity | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 100 | -- |
| | | | Totals | 0 | 0 | 0 | 40 | 39 | 20 | | | | |

## Bucket for NPTEL courses

| Sr. No. | Code | Name of NPTEL courses | Institute |
|---|---|---|---|
| 1 | 7ST612 | Bridge Engineering | IIT Dhanbad |
| 2 | 7ST613 | Computer Methods of Structural Analysis of Offshore Structures | IIT Madras |
| 3 | 7ST614 | Introduction to Engineering Seismology | IISc Bangalore |
| 4 | 7ST615 | Optimization Methods for Civil Engineering | IIT Guwahati |

Prepared by

DAC/Secretary, BoS

Head, Dept./ Chairman, BoS

Dean Academics

4/8/26

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## Second Year M. Tech. (Civil - Structural Engineering)

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## Option B

### Semester 3 B

| Sr. No. | Course Particulars | | | Course Delivery | | | | | Credits | Assessments | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | Code | Name | L | T | I | P | Hrs | | ISE/LA1 | MSE/LA2 | ESE | Ext. |
| 1 | PR | 7ST693 | Dissertation Phase-I | 0 | 0 | 0 | 22 | 22 | 11 | 30 | 30 | 40 | OE |
| 2 | PE | Refer List | Online/NPTEL/Swayam Course/In-house | 3 | 0 | 0 | 0 | 3 | 3 | 20 | 30 | 50 | -- |
| 3 | PR | 7ST647 | Mini Project 1 | 0 | 0 | 0 | 4 | 4 | 2 | 30 | 30 | 40 | -- |
| 4 | PR | 7ST648 | Mini Project 2 | 0 | 0 | 0 | 4 | 4 | 2 | 30 | 30 | 40 | |
| | | | Totals | 3 | 0 | 0 | 30 | 33 | 18 | | | | |

### Semester 4 B

| Sr. No. | Course Particulars | | | Course Delivery | | | | | Credits | Assessments | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | Code | Name | L | T | I | P | Hrs | | ISE/LA1 | MSE/LA2 | ESE | Ext. |
| 1 | PR | 7ST692 | Dissertation Phase-II | 0 | 0 | 0 | 34 | 34 | 17 | 30 | 30 | 40 | OE |
| 2 | PC | 7ST645 | Internship | 0 | 0 | 0 | 4 | 4 | 2 | 0 | 0 | 100 | -- |
| 3 | PC | 7ST646 | Techno-Socio Activity | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 100 | -- |
| | | | Totals | 0 | 0 | 0 | 40 | 39 | 20 | | | | |

## Bucket for NPTEL courses

| Sr. No. | Code | Name of NPTEL courses | Institute |
|---|---|---|---|
| 1 | 7ST612 | Bridge Engineering | IIT Dhanbad |
| 2 | 7ST613 | Computer Methods of Structural Analysis of Offshore Structures | IIT Madras |
| 3 | 7ST614 | Introduction to Engineering Seismology | IISc Bangalore |
| 4 | 7ST615 | Optimization Methods for Civil Engineering | IIT Guwahati |

| List of Software for Mini Project I & II | | | | | |
|---|---|---|---|---|---|
| Sr. No. | Software Name | Sr. No. | Software Name | Sr. No. | Software Name |
| 1 | COMSOL | 4 | SAP2000 | 7 | Tekla Structures |
| 2 | MIDAS Civil | 5 | ANSYS | 8 | STAAD.Pro |
| 3 | ETABS | 6 | ABAQUS | 9 | SAFE |

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4/3/26