



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
**(Established by Govt. of A.P., Act. No. 30 of 2008)**  
**ANANTHAPURAMU – 515 002 (A.P) INDIA**

**Course Structure for B.Tech. - R15 Regulations**  
**Common to CSE/EEE/CE**

**I B.Tech. - I Semester**

| S.No | Course code | Subject                                      | Theory | Tu / Drg / Lab | Credits |
|------|-------------|----------------------------------------------|--------|----------------|---------|
| 1.   | 15A52101    | Functional English                           | 3      | 1 - -          | 3       |
| 2.   | 15A54101    | Mathematics – I                              | 3      | 1 - -          | 3       |
| 3.   | 15A05101    | Computer Programming                         | 3      | 1 - -          | 3       |
| 4.   | 15A56101    | Engineering Physics                          | 3      | 1 - -          | 3       |
| 5.   | 15A03101    | Engineering Drawing                          | 0      | - 6 -          | 3       |
| 6.   | 15A52102    | English Language<br>Communication Skills Lab | -      | - - 4          | 2       |
| 7.   | 15A56102    | Engineering Physics Lab                      | -      | - - 4          | 2       |
| 8.   | 15A05102    | Computer Programming Lab                     | -      | - - 4          | 2       |
|      |             |                                              |        |                | 21      |

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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**Course Structure for B.Tech. - R15 Regulations**

**CIVIL ENGINEERING**

**I-II Semester**

| S.No | Course code | Subject                                | Th | Tu/Drg/Lab | Credits |
|------|-------------|----------------------------------------|----|------------|---------|
| 1.   | 15A52201    | English for Professional Communication | 3  | 1 - -      | 3       |
| 2.   | 15A54201    | Mathematics – II                       | 3  | 1 - -      | 3       |
| 3.   | 15A01201    | Engineering Mechanics                  | 3  | 1 - -      | 3       |
| 4.   | 15A51101    | Engineering Chemistry                  | 3  | 1 - -      | 3       |
| 5.   | 15A01101    | Environmental Studies                  | 3  | 1 - -      | 3       |
| 6.   | 15A01202    | Applied Mechanics Lab                  | -  | - - 4      | 2       |
| 7.   | 15A51102    | Engineering Chemistry Lab              | -  | - - 4      | 2       |
| 8.   | 15A99201    | Engineering & IT Workshop              | -  | - - 4      | 2       |
|      |             |                                        | 15 | 5 12       | 21      |



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
**Course Structure for Civil Engineering**  
**B. Tech Course**  
**(2015-16)**

**II B. Tech – I Sem**

| S.No. | Course Code | Subject                              | L         | Tu        | Lab       | C         |
|-------|-------------|--------------------------------------|-----------|-----------|-----------|-----------|
| 1     | 15A54301    | Mathematics - III                    | 3         | 1         | -         | 3         |
| 2     | 15A01301    | Electrical and Mechanical Technology | 3         | 1         | -         | 3         |
| 3     | 15A01302    | Building Materials and Construction  | 3         | 1         | -         | 3         |
| 4     | 15A01303    | Strength of Materials – I            | 3         | 1         | -         | 3         |
| 5     | 15A01304    | Surveying – I                        | 3         | 1         | -         | 3         |
| 6     | 15A01305    | Fluid Mechanics                      | 3         | 1         | -         | 3         |
| 7     | 15A01306    | Surveying Laboratory – I             | -         | -         | 4         | 2         |
| 8     | 15A01307    | Strength of Materials Laboratory     | -         | -         | 4         | 2         |
|       |             | <b>Total</b>                         | <b>18</b> | <b>06</b> | <b>08</b> | <b>22</b> |



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
**Course Structure for Civil Engineering**  
**B. Tech Course (2015-16)**

**II B. Tech – II Sem**

| S.No. | Course Code | Subject                                          | L         | Tu        | Lab       | C         |
|-------|-------------|--------------------------------------------------|-----------|-----------|-----------|-----------|
| 1     | 15A54401    | Probability and Statistics                       | 3         | 1         | -         | 3         |
| 2     | 15A52301    | Managerial Economics & Financial Analysis        | 3         | 1         | -         | 3         |
| 3     | 15A01401    | Strength of Materials – II                       | 3         | 1         | -         | 3         |
| 4     | 15A01402    | Surveying – II                                   | 3         | 1         | -         | 3         |
| 5     | 15A01403    | Structural Analysis – I                          | 3         | 1         | -         | 3         |
| 6     | 15A01404    | Hydraulics & Hydraulic Machinery                 | 3         | 1         | -         | 3         |
| 7     | 15A01405    | Fluid Mechanics & Hydraulic Machinery Laboratory | -         | -         | 4         | 2         |
| 8     | 15A01406    | Surveying Laboratory – II                        | -         | -         | 4         | 2         |
| 9     | 15A01407    | Comprehensive Online Examination-I               | -         | -         | -         | 1         |
|       |             | <b>Total</b>                                     | <b>18</b> | <b>06</b> | <b>08</b> | <b>23</b> |

**Note:-** Survey camp for a duration of two weeks to be conducted before the commencement of III B.Tech, I – Sem class work, in the II B.Tech, II – Sem break. This survey camp has to be evaluated for 50 marks by the internal faculty. It has a weightage of 2 credits. The marks and credits will be incorporated in IV – B.Tech, II – Sem marks memo.

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| <b>S. No.</b> | <b>Course Code</b> | <b>Subject</b>                        | <b>L</b>  | <b>T</b> | <b>P</b>  | <b>C</b>  |
|---------------|--------------------|---------------------------------------|-----------|----------|-----------|-----------|
| 1.            | 15A01501           | Design and Drawing of RCC Structures  | 3         | 1        | -         | 3         |
| 2.            | 15A01502           | Estimation, Costing and Valuation     | 3         | 1        | -         | 3         |
| 3.            | 15A01503           | Geotechnical Engineering – I          | 3         | 1        | -         | 3         |
| 4.            | 15A01504           | Engineering Geology                   | 3         | 1        | -         | 3         |
| 5.            | 15A01505           | Structural Analysis – II              | 3         | 1        | -         | 3         |
| 6.            |                    | <b>MOOCS-I*</b>                       | 3         | 1        | -         | 3         |
|               | 15A01506           | 1. Cost Effective Housing Techniques  |           |          |           |           |
|               | 15A01507           | 2. Water Harvesting and Conservation  |           |          |           |           |
| 7.            | 15A01508           | Engineering Geology Laboratory        | -         | -        | 4         | 2         |
| 8.            | 15A01509           | Geotechnical Engineering Laboratory   | -         | -        | 4         | 2         |
| 9.            | 15A99501           | Audit course - Social Values & Ethics | 2         | 0        | 2         | 0         |
| <b>Total:</b> |                    |                                       | <b>20</b> | <b>6</b> | <b>10</b> | <b>22</b> |

## B.Tech III-II Semester (C.E)

| S. No.        | Course Code | Subject                                                                          | L         | T         | P         | C         |
|---------------|-------------|----------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|
| 1.            | 15A01601    | Concrete Technology                                                              | 3         | 1         | -         | 3         |
| 2.            | 15A01602    | Design and Drawing of Steel Structures                                           | 3         | 1         | -         | 3         |
| 3.            | 15A01603    | Geotechnical Engineering – II                                                    | 3         | 1         | -         | 3         |
| 4.            | 15A01604    | Transportation Engineering - I                                                   | 3         | 1         | -         | 3         |
| 5.            | 15A01605    | Water Resources Engineering – I                                                  | 3         | 1         | -         | 3         |
| 6.            |             | <b>CBCC-I</b>                                                                    | 3         | 1         | -         | 3         |
|               | 15A01606    | 1. Remote Sensing & GIS                                                          |           |           |           |           |
|               | 15A01607    | 2. Disaster Management & Mitigation                                              |           |           |           |           |
|               | 15A01608    | 3. Intellectual Property Rights                                                  |           |           |           |           |
| 7.            | 15A01609    | Concrete Technology Laboratory                                                   | -         | -         | 4         | 2         |
| 8.            | 15A01610    | Transportation Engineering Laboratory                                            | -         | -         | 4         | 2         |
| 9.            | 15A52602    | Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course) | -         | -         | 2         | 0         |
| 10.           | 15A01611    | Comprehensive Online Examination-II                                              | -         | -         | -         | 1         |
| <b>Total:</b> |             |                                                                                  | <b>18</b> | <b>06</b> | <b>12</b> | <b>23</b> |

6 Theory + 2 Laboratories+1 Comprehensive Online Examination+1 Audit Course

## B.Tech IV-I Semester (C.E)

| S. No.        | Course Code | Subject                                          | L         | T        | P        | C         |
|---------------|-------------|--------------------------------------------------|-----------|----------|----------|-----------|
| 1.            | 15A01701    | Finite Element Methods                           | 3         | 1        | -        | 3         |
| 2.            | 15A01702    | Transportation Engineering - II                  | 3         | 1        | -        | 3         |
| 3.            | 15A01703    | Environmental Engineering                        | 3         | 1        | -        | 3         |
| 4.            | 15A01704    | Water Resources Engineering – II                 | 3         | 1        | -        | 3         |
| 5.            |             | <b>CBCC-II</b>                                   | 3         | 1        | -        | 3         |
|               | 15A01705    | 1. Design and Drawing of Irrigation Structures   |           |          |          |           |
|               | 15A01706    | 2. Ground Improvement Techniques                 |           |          |          |           |
|               | 15A01707    | 3. Air Pollution and Quality Control             |           |          |          |           |
| 6.            |             | <b>CBCC-III</b>                                  | 3         | 1        | -        | 3         |
|               | 15A01708    | 1. Bridge Engineering                            |           |          |          |           |
|               | 15A01709    | 2. Earth Quake Resistant Design of Structures    |           |          |          |           |
|               | 15A01710    | 3. Rehabilitation and Retrofitting of Structures |           |          |          |           |
| 7.            | 15A01711    | CAD Laboratory                                   | -         | -        | 4        | 2         |
| 8.            | 15A01712    | Environmental Engineering Laboratory             | -         | -        | 4        | 2         |
| <b>Total:</b> |             |                                                  | <b>18</b> | <b>6</b> | <b>8</b> | <b>22</b> |

## B.Tech IV-II Semester (C.E)

| S. No.        | Course Code          | Subject                                                                                             | L        | T        | P         | C         |
|---------------|----------------------|-----------------------------------------------------------------------------------------------------|----------|----------|-----------|-----------|
| 1.            | 15A01801<br>15A01802 | <b>MOOCS – II*</b><br>1. Urban Transportation Planning<br>2. Advanced Structural Engineering        | 3        | 1        | -         | 3         |
| 2.            | 15A01803<br>15A01804 | <b>MOOCS – III*</b><br>1. Prestressed Concrete<br>2. Environmental Impact Assessment and Management | 3        | 1        | -         | 3         |
| 3.            | 15A01805             | Comprehensive Viva Voce                                                                             | -        | -        | 4         | 2         |
| 4.            | 15A01806             | Technical Seminar                                                                                   | -        | -        | 4         | 2         |
| 5.            | 15A01807             | Project Work                                                                                        | -        | -        | 24        | 10        |
| 6.            | 15A01808             | Survey Camp**                                                                                       | -        | -        | -         | 2         |
| <b>Total:</b> |                      |                                                                                                     | <b>6</b> | <b>2</b> | <b>32</b> | <b>22</b> |

2 Theory + 1 Survey Camp + 1 Technical Seminar + 1 Project work+1 Comprehensive Viva Voce

\*Either by MOOCS manner or Self study or Conventional manner

\*\* The survey camp conducted after II year – II semester, shall be evaluated in IV – II Semester.

**Minor Degree in Civil Engineering**

| S. No.                           | Course Code | Subject                             | L         | T        | P        | C         |
|----------------------------------|-------------|-------------------------------------|-----------|----------|----------|-----------|
| <b>III B. Tech – I Semester</b>  |             |                                     |           |          |          |           |
| 1                                | 15A01302    | Building Materials and Construction | 3         | 1        | -        | 3         |
| <b>III B. Tech – II Semester</b> |             |                                     |           |          |          |           |
| 2                                | 15A01502    | Estimation, Costing and Valuation   | 3         | 1        | -        | 3         |
| <b>IV B. Tech –I Semester</b>    |             |                                     |           |          |          |           |
| 3                                | 15A01601    | Concrete Technology                 | 3         | 1        | -        | 3         |
| <b>IV B. Tech – II Semester</b>  |             |                                     |           |          |          |           |
| 4                                | 15A01703    | Environmental Engineering           | 3         | 1        | -        | 3         |
| <b>Total</b>                     |             |                                     | <b>12</b> | <b>4</b> | <b>-</b> | <b>12</b> |