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|  | |  | Bachelor of Technology in Civil Engineering (with Specialization)  Department of Civil and Environmental Engineering (2020-21) | | | | | | | | | | | | | | |
| Semester |  | | |  |  |  |  |  |  |  |  | Community Services | L | T | P | Contact hours  per week | Credits |
| I | MAL151  Engineering Maths-I  (3-0-2) 4 | | | CHL150  Engg. Chemistry  (2-0-2) 3 | CLL101  Eff. Comm.-I  (2-0-1) 2.5 | CSL106  FOCP-I  (2-0-4) 4 | MEP110  Engg Graphics & Drg  (1-0-4) 3 | ECL110  Basics of Electrical & Electronics Engg.  (2-0-2) 3 |  |  | CER101  General Proficiency  (1) | CES101  CS-I  (S/NS)  (70 hours) | 13 | 0 | 15 | 28 | 19.5 + 1  = 20.5 |
| II | MAL152  Engineering Maths-II  (3-0-2) 4 | | | PYL150  Engineering Physics  (3-0-2) 4 | CLLl02.  Eff. Comm.-II  (2-0-1) 2.5 | CSL108  FOCP-II  (2-0-4) 4 | MEL150  Basics of Mechanical and Civil Engineering  (2-0-2) 3 | CSL110  Problem Solving and design thinking  (2-0-2) 3 |  |  | CER102  General Proficiency  (1) | CES102  CS-II  (70 hours)  (2) | 15 | 0 | 13 | 28 | 20.5 + 3  = 23.5 |
|  | CET102 In house Summer training (2 weeks)/ Community Service (Remaining Hours) | | | | | | | | | | |  |  |  |  |  | 01 |
| III | CEL 201  Mechanics of Solids  3-0-2(4) | | | CEL203  Fluid Mechanics  3-0-2(4) | CEL205  Surveying  3-0-2(4) | CEL215  Building Materials and Construction  3-0-2(4) | SML300  Entrepreneurship  3-0-0 (3) |  | CLL 120/ SML\*\*\*  HVPE/ Liberal Arts  (2-0-0/3-0-0) 2/3 |  | CER201  General Proficiency  (1) | CES201  CS-III  (S/NS)  (35 Hours) | 19 | 0 | 8 | 27 | 22 + 1  = 23 |
| IV | CEL202  Structural Analysis I  3-0-2(4) | | | CEL206  Environmental Engineering  3-0-2(4) | CEL311  Soil Mechanics  3-0-2(4) | CEL214  Design of  Concrete Structures  3-0-2 (4) | PE-1  (3) |  |  | Skill Development  (1) | CER202  General Proficiency  (1) | CES202  CS-IV  (35 hours)  (1) | 15 | 2 | 6 | 23 | 20 + 2  = 22 |
| Summer | CET212 Survey Camp with Software application (2 weeks) + Practical Training/Software (4 weeks) + Community Service (70 hours) | | | | | | | | | | |  |  |  |  |  | 02 |
| V | CEL301  Structural Analysis II  2-1-0(3) | | | CEL212  Transportation Engineering  3-0-2(4) | CEL315  Design of  Steel Structures  3-0-2(4) | PE-2  (3) | PE-3  (3) | OE-1  (MOOC)  (3) | CLL 120/ SML\*\*\*  HVPE/ Liberal Arts  (2/3) |  | CER301  General Proficiency  (1) | CES301  CS-V  (S/NS)  (35 hours) | 20 | 1 | 4 | 25 | 22 + 1  = 23 |
| VI | CEL303  Water Resource Engineering  3-0-0(3) | | | CEL222  Construction Management  3-0-0(3) | CEL318  Earthquake Resistant Design of Structures  2-1-0 (3) | PE-4  (3) | PE-5  (3) | OE-2  (MOOC)  (3) | CLP 300  Campus to Corporate  0-0-2(1) | Seminar  (1) | CER302  General Proficiency  (1) | CES302  CS-VI  (35 hours)  (1) | 17 | 1 | 6 | 24 | 20 + 2  = 22 |
| Summer | CET 330 Practical Training-II @ construction site (8-10 weeks) + Community Service (70 hours) | | | | | | | | | | |  |  |  |  |  | 03 |
| VII | Foreign Language  (3-0-0) 3 | | | CHL100  Environmental Studies  3-0-0(3) |  | PE-6  (3) | PE-7  (3) | OE-3  (MOOC)  (3) | CED304  Major Project(A)  0-0-8(4) | Skill Development  (1) |  | CES401  CS-VII  (S/NS)  (70 hours) | 15 | 0 | 12 | 27 | 20 |
| VIII |  | | |  |  |  | OE-4  (MOOC)  (3) | OE-5  (MOOC)  (3) | CED405  Major Project (B) / Pre-Placement Internship  0-0-12(6) | SEG400  Self-Study Course GATE  (Audit) |  | CES402  CS-VIII  (70 hours)  (2) | 6 | 0 | 12 | 18 | 12 + 2  = 14 |
| TOTAL | | | | | | | | | | | |  |  |  |  |  | 162 + 12  = **174** |
| \*Blended course(s) equivalent to 6 credits will be offered as MOOCs on platforms like SWAYAM, Coursera, NPTEL, edX etc. with 1 facilitation hour by internal faculty | | | | | | | | | | | | | | | | | |

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|  | |  | Bachelor of Technology in Civil Engineering (with Specialization)  Department of Civil and Environmental Engineering (2019-20) | | | | | | | | | | | | | | |
| Semester |  | | |  |  |  |  |  |  |  |  | Community Service | L | T | P | Contact hours  per week | Credits |
| I | MAL151  Engineering Maths-I  (3-0-2) 4 | | | CHL150  Engg. Chemistry  (1-0-2) 2 | CLL101  Eff. Comm.-I  (2-0-0) 2 | CSL106  FOCP-I  (2-0-6) 5 | MEP110  Engg Graphics & Drg  (1-0-3) 2.5 | CLL 120  Human Values and professional Ethics  (1-0-1) 1.5 | CSL110  Problem Solving and design thinking  (0-0-4) 2 |  | CER101  GP  (1) |  | 10 | 0 | 18 | 28 | 20 |
| II | MAL152  Engineering Maths-II  (3-0-2) 4 | | | PYL150  Engineering Physics  (3-0-2) 4 | CLLl02.  Eff. Comm.-II  (2-0-0) 2 | CSL108  FOCP-II  (2-0-6) 5 | MEL150  Basics of Mechanical  and Civil Engineering  (2-0-2) 3 | ECL110  Basics of Electrical & Electronics Engg.  (2-0-2) 3 |  |  | CER102  GP  (1) |  | 14 | 0 | 14 | 28 | 22 |
|  | CET102 Summer Camp (2 weeks) | | | | | | | | | | |  |  |  |  |  | 02 |
| III | CEL 201  Mechanics of Solids  3-1-0(4) | | | CEL203  Fluid Mechanics  3-0-2(4) | CEL205  Surveying  3-0-2(4) | CEL210  Concrete Technology  3-0-0 (3) | CEL215  Building materials and construction  3-0-0(3) | CHL100  Environmental Studies  3-0-0(3) |  |  | CER201  GP  (1) | CES201  CS-III  (S/NS)  (35 Hours) | 18 | 1 | 4 | 23 | 21 + 1  = 22 |
| IV | CEL202  Structural Analysis-I  3-1-0(4) | | | CEL206  Environmental Engineering  3-0-2(4) | CEL212  Transportation Engineering  3-0-0(3) | CEL214  Design of  Concrete Structures  3-1-0 (4) | PE-1  (3) | CEP202  Material Testing Lab  0-0-4 (2) |  | CEV202  Value Addition Course  (1) | CER202  GP  (1) | CES202  CS-IV  (35 hours)  (1) | 15 | 2 | 6 | 23 | 21 + 2  = 23 |
|  | CET212 Survey Camp with Software application (2 weeks) + Practical Training/Software (4 weeks) + Community Service (70 hours) | | | | | | | | | | |  |  |  |  |  | 02 |
| V | CEL301  Structural Analysis II  3-1-0(4) | | | CEL311  Soil Mechanics  3-0-2(4) | CEL315  Design of  Steel Structures  3-1-0(4) | OE-1  (3) | OE-2  (Foreign Language)  (3) | CEP302  Computer Aided Design and Drawing  0-0-2(1) |  |  | CER301  GP  (1) | CES301  CS-V  (S/NS)  (35 hours) | 15 | 2 | 4 | 21 | 19 + 1  = 20 |
| VI | CEL318  Earthquake Resistant Design of Structures  3-1-0 (4) | | | CEL303  Water Resource Engineering  3-0-0(3) | CEL222  Construction Management  3-0-0(3) | PE 2  (3) | OE-3  (3) | CLP 300  Campus to Corporate  0-0-2(1) | CEP 304  Technical Skills  0-0-2(1) | CEP306  Project Based Learning (Tinkering)  (1) | CER302  GP  (1) | CES302  CS-VI  (35 hours)  (1) | 15 | 1 | 4 | 20 | 19 + 2  = 21 |
|  | CET 330 Practical Training-II @ construction site (8-10 weeks) + Community Service (70 hours) | | | | | | | | | | |  |  |  |  |  | 03 |
| VII | PE 3  (3) | | | PE 4  (3) | PE 5  (3) | SML300  Entrepreneurship  3-0-0 (3) | OE-4  (3) |  | CED304  Major Project(A)  0-0-8(4) | CEV401  VA Course  (1) | CER401  GP  (1) | CES401  CS-VII  (S/NS)  (70 hours) | 15 | 0 | 8 | 23 | 20 + 1  = 21 |
| VIII | \*PE 6  (3) | | | \*PE 7  (3) |  |  |  |  | CED405  Major Project (B) / Pre-Placement Internship  0-0-12(6) | SEG400  Self-Study Course GATE  (Audit) | CER402  GP  (1) | CES402  CS-VIII  (70 hours)  (2) | 6 | 0 | 12 | 18 | 12 + 3  = 15 |
| TOTAL | | | | | | | | | | | |  |  |  |  |  | 159 + 12  = **171** |
| \*Blended course(s) equivalent to 6 credits will be offered as MOOCs on platforms like SWAYAM, Coursera, NPTEL, edX etc. with 1 facilitation hour by internal faculty | | | | | | | | | | | | | | | | | |

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|  |  | | **Bachelor of Technology in Civil Engineering Department of Civil and Environmental Engineering (2018-19)** | | | | | | | | | | | | | | |
| **Semester** | |  | |  |  |  |  |  |  |  |  | Community Service | **L** | **T** | **P** | **Contact hours**  **per week** | **Credits** |
| **I** | | MAL151  Engineering Mathematics I  3-0-2(4) | | PYL150  Engineering Physics  3-0-2(4) | ECL110  BEEE  3-0-2(4) | MEL150  Basics of Mechanical Engineering  2-0-2(3) | CSL106  FOCP-1  1-0-2(2) | CLL101  Effective  Communication I  1-0-2(2) |  |  | CER101  General Proficiency  (1) |  | 13 | 0 | 12 | 25 | 20 |
| **II** | | MAL152  Engineering Mathematics II  3-0-2(4) | | CSL108  FOCP-II  1-0-2(2) | CLL 120  Human Values and professional Ethics  2-0-0 (2) | MEP110  Engineering Graphics &  Drawing  1-0-3(3) | CHL150  Engineering Chemistry  2-0-2 (3) | CLL102  Effective  Communication II  1-0-2(2) | CSL110  Problem Solving and design thinking  2-0-2(3) |  | CER102  General Proficiency  (1) |  | 12 | 0 | 13 | 25 | 20 |
|  | | CET102 Summer Camp (2 weeks) | | | | | | | | | |  |  |  |  |  | 02 |
| **III** | | CEL 201  Mechanics of Solids  3-1-0(4) | | CEL203  Fluid Mechanics  3-0-2(4) | CEL205  Surveying  3-0-2(4) | CEL210  Concrete Technology  3-0-0 (3) | CEL215  Building materials and construction  3-0-0(3) | CHL100  Environmental Studies  3-0-0(3) |  |  | CER201  General Proficiency  (1) |  | 18 | 1 | 4 | 23 | 22 |
| **IV** | | CEL202  Structural Analysis-I  3-1-0(4) | | CEL206  Environmental Engineering  3-0-2(4) | CEL212  Transportation Engineering  3-0-0(3) | CEL214  Design of  Concrete Structures  3-1-0 (4) | PE-1  (3) | CEP202  Material Testing Lab  0-0-4 (2) |  | Value Addition Course  (1) | CER202  General Proficiency  (1) |  | 15 | 2 | 6 | 23 | 22 |
| **Summer** | | CET212 Survey Camp with Software application (2 weeks) + Practical Training/Software (4 weeks) | | | | | | | | | |  |  |  |  |  | 02 |
| **V** | | CEL301  Structural Analysis II  3-1-0(4) | | CEL311  Soil Mechanics  3-0-2(4) | CEL315  Design of  Steel Structures  3-1-0(4) | OE-1  (3) | OE-2  (Foreign Language)  (3) | CEP302  Computer Aided Design and Drawing  0-0-2(1) |  |  | CER301  General Proficiency  (1) | CES301  CS-V  (S/NS)  (35 hours) | 15 | 2 | 4 | 21 | 19 + 1  = 20 |
| **VI** | | CEL318  Earthquake Resistant Design of Structures  3-1-0 (4) | | CEL303  Water Resource Engineering  3-0-0(3) | CEL222  Construction Management  3-0-0(3) | PE 2  (3) | OE-3  (3) | CLP 300  Campus to Corporate  0-0-2(1) | CEP 304  Technical Skills  0-0-2(1) | CEP306  Project Based Learning (Tinkering)  (1) | CER302  General Proficiency  (1) | CES302  CS-VI  (35 hours)  (1) | 15 | 1 | 4 | 20 | 19 + 2  = 21 |
| **Summer** | | CET 330 Practical Training-II @ construction site (8-10 weeks) + Community Service (70 hours) | | | | | | | | | |  |  |  |  |  | 03 |
| **VII** | | PE 3  (3) | | PE 4  (3) | PE 5  (3) | SML300  Entrepreneurship  (3) | OE-4  (3) |  | CED304  Major Project(A)  0-0-8(4) | Value Addition Course  (1) | CER401  General Proficiency  (1) | CES401  CS-VII  (S/NS)  (70 hours) | 15 | 0 | 8 | 23 | 20 + 1  = 21 |
| **VIII** | | \*PE 6  (3) | | \*PE 7  (3) |  |  |  |  | CED405  Major Project (B) / Pre-Placement Internship  0-0-12(6) | SEG400  Self-Study Course GATE  (Audit) | CER402  General Proficiency  (1) | CES402  CS-VIII  (70 hours)  (2) | 6 | 0 | 12 | 18 | 12 + 3  = 15 |
| **TOTAL** | | | | | | | | | | | |  |  |  |  |  | **157+11=168** |
| \*Blended course(s) equivalent to 6 credits will be offered as MOOCs on platforms like SWAYAM, Coursera, NPTEL, edX etc. with 1 facilitation hour by internal faculty | | | | | | | | | | | | | | | | | |
| |  |  |  |  | | --- | --- | --- | --- | |  | **University Level Courses** |  | **General Proficiency** | |  | **Theory Courses** |  | **Open Elective courses** | |  | **Lab Courses** |  | **Project based Learning** | |  | **Program Elective Courses** |  | **Skill Development Courses** | | | | | | | | | | | | | | | | | | |