



ANNEXURE – VII

(CO Attainment Jan - June 2024)



ANNEXURE – VII

CO Attainment & Gap Analysis Jan – June 2024

Table.1: CO Attainment & Gap Analysis of I Year, II SEM

| Course Code & Name | Course Outcomes | Direct CO Attainment | Indirect CO Attainment | Overall CO Attainment | Target Attainment | Gap in Attainment | Status of CO Attainment | Action Taken |
|---|-----------------|----------------------|------------------------|-----------------------|-------------------|-------------------|-------------------------|---|
| 3110221: Surveying | CO 1 | 1.28 | 3.00 | 1.62 | 2.5 | 0.88 | Not Attained | More explain linear & angular measurements |
| | CO 2 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More explain leveling & contours |
| | CO 3 | 0.45 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More assignments on surveying |
| | CO 4 | 0.43 | 3.00 | 0.94 | 2.5 | 1.56 | Not Attained | More explain techniques of controlling points |
| | CO 5 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More explain the methods for curve setting |
| 3110222: Strength of Material (Lab) | CO 1 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 2 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 3 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 4 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 5 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| 3110222: Strength of | CO 1 | 0.42 | 3.00 | 0.93 | 2.5 | 1.57 | Not Attained | More assignments and numerical |



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|---------------------------------------|------|------|------|------|-----|-------|--------------|--|
| Material | CO 2 | 0.42 | 3.00 | 0.94 | 2.5 | 1.56 | Not Attained | problems to be given |
| | CO 3 | 0.41 | 3.00 | 0.92 | 2.5 | 1.58 | Not Attained | |
| | CO 4 | 0.41 | 3.00 | 0.93 | 2.5 | 1.57 | Not Attained | |
| | CO 5 | 0.40 | 3.00 | 0.92 | 2.5 | 1.58 | Not Attained | |
| | CO 1 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | |
| 3110223: Surveying Practice Lab | CO 2 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 3 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 4 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 5 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 1 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |



Table.2: CO Attainment & Gap Analysis of II Year, IV SEM

| Course Code & Name | Course Outcomes | Direct CO Attainment | Indirect CO Attainment | Overall CO Attainment | Target Attainment | Gap in Attainment | Status of CO Attainment | Action Taken |
|-----------------------------------|-----------------|----------------------|------------------------|-----------------------|-------------------|-------------------|-------------------------|---|
| 2110421: Fluid Mechanics-II | CO1 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More explain types of fluid flow & machinery |
| | CO2 | 0.46 | 3.00 | 0.97 | 2.5 | 1.53 | Not Attained | More explain principles of fluid flow |
| | CO3 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More explain measurement of different forces |
| | CO4 | 0.43 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More assignments on fluid flow problems |
| | CO5 | 0.45 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More explain design of open & closed conduit system |
| 2110422: Theory of Structures-II | CO1 | 0.42 | 3.00 | 0.93 | 2.5 | 1.57 | Not Attained | More explain methods for analysis of structures |
| | CO2 | 0.43 | 3.00 | 0.94 | 2.5 | 1.56 | Not Attained | More assignments for structural analysis |
| | CO3 | 0.42 | 3.00 | 0.94 | 2.5 | 1.56 | Not Attained | |
| | CO4 | 0.42 | 3.00 | 0.93 | 2.5 | 1.57 | Not Attained | |
| | CO5 | 0.42 | 3.00 | 0.94 | 2.5 | 1.56 | Not Attained | |
| 2110423: Water Supply Engineering | CO1 | 2.10 | 3.00 | 2.28 | 2.5 | 0.22 | Not Attained | More explain concept of water supply |



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|-------------------------------------|------|------|------|------|-----|-------|--------------|---|
| | CO2 | 0.46 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More explain the requirements for water |
| | CO3 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More explain water treatment technique |
| | CO4 | 0.45 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More assignment to analyze water supply scheme |
| | CO5 | 0.45 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More assignments to design water supply system |
| 2110424: Water Resource Engineering | CO1 | 0.00 | 3.00 | 0.60 | 2.5 | 1.90 | Not Attained | More explain concept of hydrology |
| | CO2 | 0.00 | 3.00 | 0.60 | 2.5 | 1.90 | Not Attained | More explain the measurements of rainfall |
| | CO3 | 0.00 | 3.00 | 0.60 | 2.5 | 1.90 | Not Attained | More assignments to analyse hydrograph |
| | CO4 | 0.00 | 3.00 | 0.60 | 2.5 | 1.90 | Not Attained | More assignments on irrigation project |
| | CO5 | 0.00 | 3.00 | 0.60 | 2.5 | 1.90 | Not Attained | More assignments on design of irrigation system |
| | CO6 | 0.00 | 3.00 | 0.6 | 2.5 | 1.90 | Not Attained | More explain planning of irrigation system |
| 2110425:Civil Drawing Lab | CO 1 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 2 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |



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|--|------|------|------|------|-----|-------|----------|---------------------------------------|
| | CO 3 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 4 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 5 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |



Table.3: CO Attainment & Gap Analysis of III Year, VI SEM

| Course Code & Name | Course Outcomes | Direct CO Attainment | Indirect CO Attainment | Overall CO Attainment | Target Attainment | Gap in Attainment | Status of CO Attainment | Action Taken |
|---------------------------------|-----------------|----------------------|------------------------|-----------------------|-------------------|-------------------|-------------------------|--|
| 110621: Waste Water Engineering | CO 1 | 0.49 | 3.00 | 0.99 | 2.5 | 1.51 | Not Attained | More explain waste water engineering |
| | CO 2 | 0.31 | 3.00 | 0.85 | 2.5 | 1.65 | Not Attained | More explain the requirements for safe disposal of water |
| | CO 3 | 0.71 | 3.00 | 1.16 | 2.5 | 1.34 | Not Attained | More explain sewage treatment technique |
| | CO 4 | 0.33 | 3.00 | 0.87 | 2.5 | 1.63 | Not Attained | More assignments to analyze sewerage system |
| | CO 5 | 0.56 | 3.00 | 1.04 | 2.5 | 1.46 | Not Attained | More explain the design of sewerage system |
| 110622: S. D. D. (Steel) | CO 1 | 2.14 | 3.00 | 2.32 | 2.5 | 0.18 | Not Attained | More assignments on connections |
| | CO 2 | 0.45 | 3.00 | 0.96 | 2.5 | 1.54 | Not Attained | More assignments on design of tension members |
| | CO 3 | 0.44 | 3.00 | 0.95 | 2.5 | 1.55 | Not Attained | More assignments on design of compression |



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|--|------|------|------|------|-----|-------|--------------|--|
| | | | | | | | | members |
| | CO 4 | 0.46 | 3.00 | 0.97 | 2.5 | 1.53 | Not Attained | More assignments on design of flexure members |
| | CO 5 | 0.46 | 3.00 | 0.97 | 2.5 | 1.53 | Not Attained | More assignments on design of plate girder & column base |
| 110623: Estimating Costing & Contract | CO 1 | 1.78 | 3.00 | 2.02 | 2.5 | 0.48 | Not Attained | More explain quantity estimation, costing & contracting |
| | CO 2 | 0.36 | 3.00 | 0.88 | 2.5 | 1.62 | Not Attained | More assignments to estimate area, volume & cost |
| | CO 3 | 0.37 | 3.00 | 0.90 | 2.5 | 1.60 | Not Attained | More assignments on rate & quantity estimation |
| | CO 4 | 0.37 | 3.00 | 0.90 | 2.5 | 1.60 | Not Attained | More assignments to determine rates & value |
| | CO 5 | 0.38 | 3.00 | 0.91 | 2.5 | 1.59 | Not Attained | More explain rates if item & contracts |
| 910110: Sustainable Materials & | CO 1 | 2.48 | 3.00 | 2.58 | 2.5 | -0.08 | Attained | Rubrics for the level can be modified |



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| Green Building | CO 2 | 2.26 | 3.00 | 2.41 | 2.5 | 0.09 | Not Attained | More explain the indoor air quality |
| | CO 3 | 0.98 | 3.00 | 1.38 | 2.5 | 1.12 | Not Attained | More explain the life cycle energy, BIPV |
| | CO 4 | 1.93 | 3.00 | 2.14 | 2.5 | 0.36 | Not Attained | More explain the guidelines of ECBC, LEED, GRIHA |
| | CO 5 | 2.26 | 3.00 | 2.41 | 2.5 | 0.09 | Not Attained | More explain the renewable energy sources in buildings |
| 910111: Building Service & Maintenance | CO 1 | 2.59 | 3.00 | 2.67 | 2.5 | -0.17 | Attained | Rubrics for the level can be modified |
| | CO 2 | 1.48 | 3.00 | 1.79 | 2.5 | 0.71 | Not Attained | More explain fire fighting system |
| | CO 3 | 1.77 | 3.00 | 2.01 | 2.5 | 0.49 | Not Attained | More explain maintenance of building services |
| | CO 4 | 2.25 | 3.00 | 2.40 | 2.5 | 0.10 | Not Attained | More explain sustainable building services plan |
| 110624: Minor Project-II | CO 1 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 2 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 3 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |



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|--|------|------|------|------|-----|-------|----------|---------------------------------------|
| | CO 4 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |
| | CO 5 | 3.00 | 3.00 | 3.00 | 2.5 | -0.50 | Attained | Rubrics for the level can be modified |



Table.4: CO Attainment & Gap Analysis of IV Year, VIII SEM

| Course Code & Name | Course Outcomes | Direct CO Attainment | Indirect CO Attainment | Overall CO Attainment | Target Attainment | Gap in Attainment | Status of CO Attainment | Action Taken |
|--|-----------------|----------------------|------------------------|-----------------------|-------------------|-------------------|-------------------------|---|
| 110821: Internship/Research Project | CO 1 | 3.0 | 3.0 | 3.0 | 2.5 | -0.5 | Attained | More explain different components of hydro project |
| | CO 2 | 3.0 | 3.0 | 3.0 | 2.5 | -0.5 | Attained | More explain designing hydropower plant & cross drainage works |
| | CO 3 | 3.0 | 3.0 | 3.0 | 2.5 | -0.5 | Attained | More assignments on dam analysis, energy dissipaters & cross drainage works |
| | CO 4 | 3.0 | 3.0 | 3.0 | 2.5 | -0.5 | Attained | More explain types of hydraulic structures |
| | CO 5 | 3.0 | 3.0 | 3.0 | 2.5 | -0.5 | Attained | More assignments on design of hydraulic structures |