

**COURSE NAME** : Civil Engineering Group

**COURSE CODE** : CE/CS/CR

**SEMESTER** : Sixth

**SUBJECT TITLE** : Civil Engineering Project

**SUBJECT CODE** :

**TEACHING AND EXAMINATION SCHEME:**

Teaching Scheme			Examination Scheme						
TH	TU	PR	Paper Hrs	TH	TEST	PR	OR	TW	TOTAL
-	--	04	--	--	--	--	50#	50@	100

**Rationale:**

A Civil Engineer is concerned with the basic needs of living beings such as shelter, water and environment. He/She has to supervise the construction of buildings and structures for irrigation, transportation, water supply and sanitary system etc.

Apart from supervising construction and maintenance of civil engineering works a Diploma Engineer has to carry out survey, collect, analyze and synthesize the data. He/She has also to refer handbooks, I.S.Codes and design small structures on the basis of knowledge of different subjects.

Due to changing scenario the role of Diploma Engineer is becoming more prominent and has to acquire professional abilities and develop confidence to face civil engineering problems.

This subject is intended to apply civil engineering principles, rules and regulations to solve a real life problem and to provide a feasible solution. For this he/She will collect data through survey work and referring various information resources and prepare drawings ,designs ,estimate and write a detailed project report.

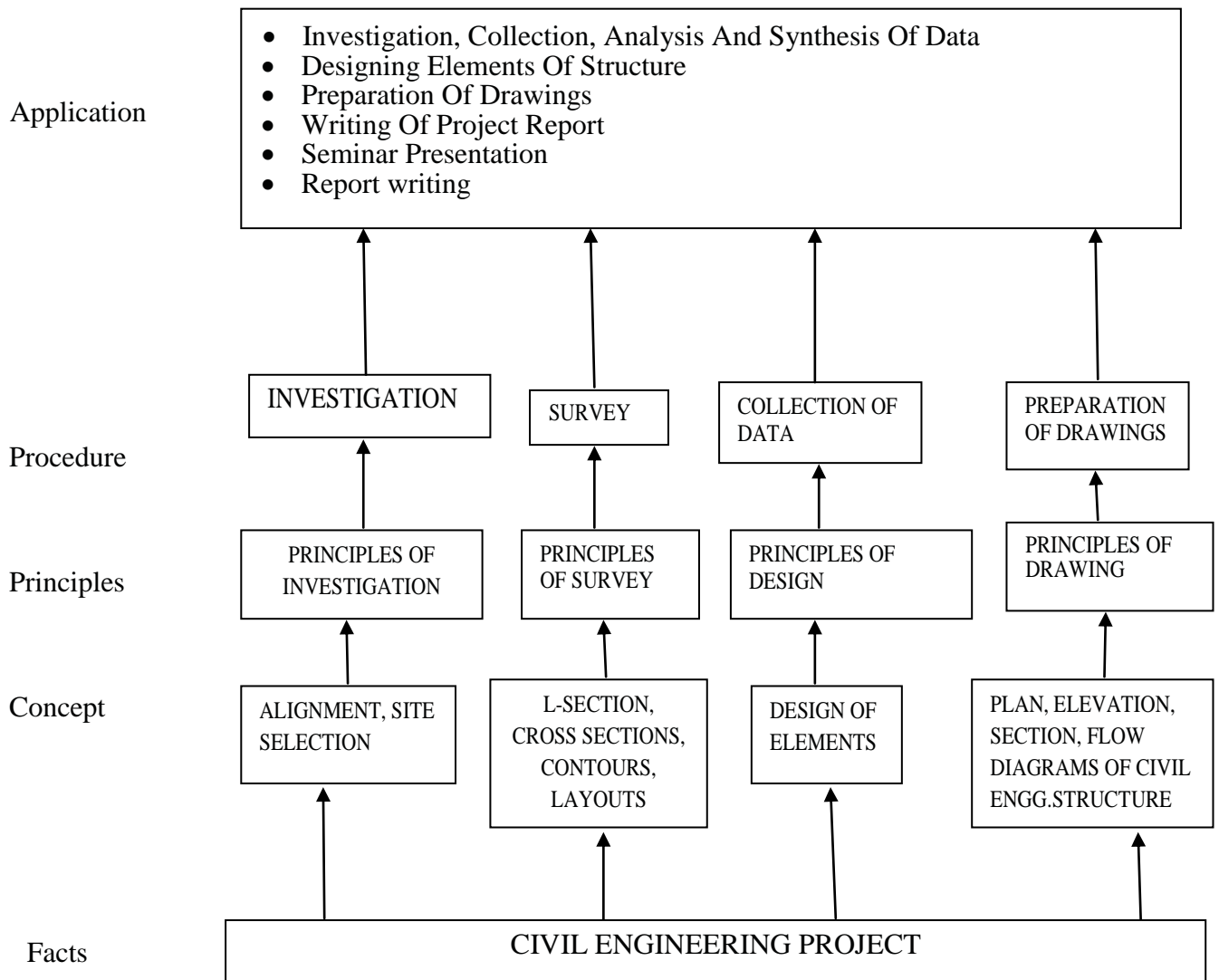
The project and seminar activities will provide students the exposure to handle real life problems and their solutions and prepare him/her to enter confidently in the world of work.

**Objectives:**

Students will be able to:

- 1) Collect the information for a given project.
- 2) Apply principles, theorems and bye-laws in the project planning and design.
- 3) Interpret and analyze the data.
- 4) Develop professional abilities such as persuasion, confidence, perseverance and Communication skill.
- 5) Develop presentation skill.
- 6) Enhance creative thinking.
- 7) Report writing.

**Learning Structure:**



**Notes: The batch of students for the project shall be limited to 06 students.**

**Project:**

Skills to be developed:

Intellectual skills:

- 1) Decide and collect data for projects.
- 2) Read and interpret the drawing, data.
- 3) Apply the principles, rules, regulations and bye-laws.
- 4) Design the components.
- 5) Prepare format for reports.

Motor skills:

- 1) Prepare drawings for project.
- 2) Use of computer for drawing, networking.
- 3) Work in a group for a given task.
- 4) Prepare a report.

**List of Projects:**

Following are the areas of suggested civil engineering projects to be undertaken by a group of students. The project can be selected from the following civil engineering systems like

- Building construction system
- Transportation Engineering
- Irrigation Engineering
- Public health Engineering
- Management

**The project report should preferably be in the following format:**

- Topic and objectives.
- Collection of data.
- Literature Survey.
- Required survey work.
- Design of components.
- Preparation of required drawing, if any.
- Preparation of Estimate.
- Management and construction procedure.
- Resources scheduling and networking.
- Benefits to society.
- Conclusion.

- **LIST OF CIVIL ENGINEERING PROJECTS:**

- 1) K.T. Weir.
- 2) Lift Irrigation scheme.
- 3) Micro irrigation -Drip/Sprinkler Irrigation.
- 4) Junction planning for city roads/planning for roads for congested area/parking studies etc.
- 5) Watershed development of small catchments.
- 6) Rain water harvesting for domestic or public building.
- 7) Campus development.
- 8) Interior design and decoration.
- 9) Concrete mix design.
- 10) Bridge design.
- 11) Structural Audit
- 12) NDT of any RCC building.
- 13) Solid waste management.
- 14) Hospital waste disposal.
- 15) Recycling of resources.
- 16) Manufacturing of pre-cast concrete products.
- 17) Prestressed concrete.
- 18) Non conventional sources of energy.
- 19) Concrete pipe manufacturing unit.
- 20) Advance construction techniques.
- 21) Transfer of technology to villages.
- 22) Planning and design for residential apartments/commercial complex.
- 23) Planning and design of water treatment plant for given data.
- 24) Planning and design of water supply scheme for given layout.
- 25) Planning and design of sewage treatment plant for given data.
- 26) Planning and design of sanitary scheme for given layout.

Any other similar project can be selected.

**Term Work:** Shall consist of ----Detailed project report in above format.  
Separate drawing sheets covering details of the project, if any shall also be prepared.

## **Learning Resources:**

- 1) Civil Engineering Hand Books / Reference books.
- 2) Civil Engineering Magazines/Journals.
- 3) Relevant IS / International codes.
- 4) PWD Handbooks / M.I. Manuals.
- 5) Material/Machinery / Product Catalogues.
- 6) Related Websites for technological information.
- 7) [www.projectreport.com](http://www.projectreport.com)
- 8) [www.howstuffworks.com](http://www.howstuffworks.com)