Course title: Minor Project in Water Science and Governance

Course code: WSW 107	**No. of credits:** 6	**L-T-P:** 0-0-168	**Learning hours: 200***

Pre-requisite course code and title (if any): NA

Department: Coca-Cola Department of Regional Water Studies

Course Coordinator: Project/ Placement coordinator	**Course Instructor:** Assigned supervisor(s)
Contact details: email of assigned supervisors	
Course type: Core	**Course offered in:** Semester 3

Course description

The course offers a research driven learning approach, guided by realistic and challenging problems in water sector. The course includes 6-8 weeks of in-house research or industry training on any water-relevant problem through supervised self-learning approach. Based on need of contemporary areas of water sector, including groundwater management, wetlands, wastewater and sewage treatment, innovations in agriculture, water reuse, water efficiency, water audit & management, watershed practices and policy, guidelines & regulations, the students shall work on specific thematic areas, analyze data using basic statistics, assessing potential of improvement in existing solutions or similar tasks assigned by the supervisor. The students shall implement their classroom learnings and specialization, test hypothesis through literature review, experiment or field survey, analyze and report the results/findings. It would prepare students to take up water resource management projects in future with a clear understanding of linkage of water to sustainable development.

Course objective

- To work on ideas that are aligned with the government programmes on water management.
- To train students to use analytical skills and knowledge for addressing problems/challenges in contemporary areas of water sector including groundwater, water pollution, wastewater and sewage treatment, innovations in agriculture, water reuse, water efficiency, water audit & management, watershed practices and policy, guidelines & regulations
- To impart skills and training relevant to the specific fields as mentioned above.
- To enable the students to take up independent research work in future, applying various tools

Course contents

Module	Topic	L	T	P
1	• Broad problem identification on thematic area in consultation with the internal supervisor/host organization • Define overall aims and objective and relevant research questions and research objectives to be addressed	0	0	20
2	• Define methodology to be followed and identify materials/tools to be used for achieving each objective • Systematic review of literature, internal or external reports etc. relevant on the specific problem and create benchmark	0	0	20
3	• Identifying parameters, variables to carry out situation analysis or scenario analysis depending on objectives • Data collection/ field survey/experimental or other relevant work depending on the objectives • Analysis and interpretation of the findings/results/data • Developing overall conclusion based on inferences and findings and enlisting the limitations of the work.	0	0	128
	Total	**0**	**0**	**168**

* The remaining learning hours are allocated for self-learning, interaction with expert, training at the organization, dissertation writing etc.

Evaluation criteria

- Response/feedback from the host organization/supervisor (20%)
- Minor project report (40%)
- Presentation and Viva (30%)
- Meeting timeline (10%) (Consisting of: joining report (2%), progress reports (2% each), feedback form (2%), and final thesis (2%).

- If plagiarism is detected using plagiarism checking software (e.g. Turnitin), it will be referred to the Minor Project Committee (comprising of supervisors and faculty members), which would take a decision and penalty to be imposed/disciplinary action to be taken. The guidelines for the Minor Project Committee are as follows:

Levels of Plagiarism	**Percentage of similarity**	**Maximum percentage marks to be deducted from dissertation/thesis**
Level 3	> 60%	Student's registration to the program stands cancelled
Level 2	> 40% ≤ 60%	Student repeats the course next year
Level 1	> 10% ≤ 40%	The student is required to resubmit the report within a week
Level 0	≤ 10%	0%

• The students scoring less than or equal to 50% (or ≤ 50%) overall marks in the evaluation would be considered to have failed in this course. Grading of the Minor Project will be absolute in nature and would be done as per the following criteria:

>90	A+
>80≤90	A
>70≤80	B+
>60≤70	B
>50≤60	C+
>45≤50	C
>40≤45	D
≤40	F

Learning outcomes

- Student develops an understanding of real time problems/challenges in water resources governance and management projects and their alignment with the government programmes.
- Student learns to apply research methods and different statistical tools in real-time research projects.
- Student learns and applies relevant scientific methods and techniques (statistical, numerical and/or geospatial) in problem-solving.
- Student is trained to effectively communicate and demonstrate the learning through structured thesis/dissertation and oral presentation.

Pedagogical approach

Self-learning; discussion with the supervisors; interaction with experts; field work; laboratory work, etc.

Materials

Peer-reviewed journal articles
Reputed conference proceedings
Reports related to the specific project
Learning materials provided by the host organization

Additional information (if any)

A detailed guideline along with important dates and format will be notified by the department, in advance, with other relevant details.
If there is any change in evaluation criteria/policy, it will be updated in the guideline every year.
Dissertation submission and schedule of presentation will be coordinated by Project/Programme coordinators.

Student responsibilities

Attendance; Discipline; Research Ethics etc.

Course Reviewer: MPEC