

Course title: Major Project in Water Science and Governance				
Course code: WSW 108		No. of credits: 16	L-T-P: 0-0-448	Learning hours: 640*
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 4	
Course description The course offers a research driven learning approach, guided by realistic and challenging problems in water sector. The course includes 16-20 weeks of industry training/consultancy/in house research on any water-relevant problem through supervised self-learning approach. Based on need of contemporary areas of water sector in detail, including groundwater management, water pollution, wetlands, wastewater and sewage treatment, innovations in agriculture, water reuse, water efficiency, water audit & management, watershed practices, river basin management 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, experiments, 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				
<ul style="list-style-type: none"> • 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 wastewater and sewage treatment, innovations in agriculture, water reuse, water efficiency, water audit & management and policy, guidelines & regulations • To impart skills and training relevant to the specific fields as mentioned above. • To enable the students to execute research work including designing research strategies and methodology depending on the problem and demonstrate findings thoroughly. • To develop job-oriented specialization significant for transitioning from academic milieu to a work environment. 				
Course contents				
Module	Topic	L	T	P
1	<ul style="list-style-type: none"> • Broad problem identification on thematic area in consultation with the host industry/organization • Define overall aims and objective and relevant research questions and research objectives to be addressed 	0	0	40
2	<ul style="list-style-type: none"> • 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	40
3	<ul style="list-style-type: none"> • Identifying parameters, variables (including identification of new variables) to carry out situation analysis or scenario analysis depending on objectives • Data collection/ modelling/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	368
Total		0	0	448

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

Evaluation criteria

- Dissertation (40%)
- Presentation and viva (30%)
- Timeline adherence (10%) [Consisting of: joining report (1%), synopsis and topic (1%), progress report (0.5% each), feedback form (1%), final dissertation (5%)]
- Feedback from the Host Organization/Supervisor (20%)
- If plagiarism is detected using plagiarism checking software (e.g. Turnitin), it will be referred to the Major 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 Major 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 Major 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