COURSE DETAIL

HYDROLOGY AND WATER RESOURCE ENGINEERING
Country Ireland
Host Institution University of Galway
Program(s) University of Galway
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Civil Engineering
UCEAP Course Number 108
UCEAP Course Suffix
UCEAP Official Title HYDROLOGY AND WATER RESOURCE ENGINEERING
UCEAP Transcript Title HYDRLOGY&WATER ENGR
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description
This course explores the theory and practice of engineering hydrology and how these are applied to water resource engineering. Students learn to recognize where and why engineering hydrology techniques are needed in civil engineering; specify measurement systems for rainfall, streamflow, and evaporation and calculate evaporation rates using the Penman method; estimate single site flood frequencies and flood risks; analyze and interpret low flow data for the purposes of deciding the suitability of a water body as a source for water extraction or as a receiving water for an effluent; perform back routing and forward routing of flow hydrographs through lakes and reservoirs in order to solve either flooding or water resources problems; calculate flood hydrographs from given design rainfalls; and calculate drawdowns caused by specified pumping rates in an idealized aquifer and infer aquifer storativity and transmissivity values from pumping test data. Students also learn the application of hydrological principles to water.

Language(s) of Instruction
English

Host Institution Course Number
CE469

Host Institution Course Title
HYDROLOGY AND WATER RESOURCE ENGINEERING

Host Institution Course Details
http://www.nuigalway.ie/engineering-informatics/civil-engineering/currentstuden...

Host Institution Campus
National University of Ireland, Galway

Host Institution Faculty

Host Institution Degree

Host Institution Department
Civil Engineering

Course Last Reviewed
2019-2020

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