The Hashemite University
Faculty of Engineering
Civil Engineering Program
Course Syllabus

Course Title:	Hydrology	**Course Number:**	110401454
Designation:	Compulsory	**Prerequisite(s):**	
Instructor:	Eng. Suzan albataineh	**Instructor's e-mail:**	Suzan@hu.edu.jo
Office Hours:	Refer to posted time table		
Class schedule:	2 hours per week		

Course Description (catalog): hydrology is a basic civil engineering course that enables CE students to understand and perform engineering computations related to water quantities from rainfall or snowmelt. In specific, topics related to hydrologic cycle and budget, statistical methods in hydrology, surface and groundwater flow computation will be addressed.

Textbook(s) and/or Other Supplementary Materials: Introduction to hydrology. Viessman W. (2002), 5th edition, Prentice Hall. Lectures notes (pdf) provided by lecturer.

Major Topics Covered:

Topic	No. of Weeks	Contact hours*
Ch. 1: Introduction, hydrologic cycle, hydrologic budget.	1	2
S. M.: watershed and watershed characteristics.	2	4
Ch. 3: Statistical methods in hydrology.	2	4
S. M.: Flow computation from small watersheds.	1	2
Ch. 4 - 7: Hydrologic parameters (precipitation, interception, depression storage and infiltration).	3	6
Ch. 9: Hydrographs.	3	6
Ch. 10: Groundwater hydrology.	2	4
S. M.: Introduction to water resources.	1	2
Total	**15**	**30**

*Contact hours include lectures and exams.

Specific Outcomes of Instruction (Course Learning Outcomes):

After completing the course, the student will be able to:

- Use principles of engineering hydrology to compute the rain and groundwater flow (**Outcome 1**).
- Observe and gain knowledge related to contemporary issues in hydrology (**Outcome 7)**.

Student Outcomes (SO) Addressed by the Course:

#	Outcome Description	Contribution
	General Engineering Student Outcomes	
1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	(H = 90)
2	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
3	an ability to communicate effectively with a range of audiences	
4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	
5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	
6	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	

7	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	(L=10)
H=High, **M**= Medium, **L**=Low		

Grading Plan:

mid Exam	40 Points	
quiz and assignment	20 Points	
Final Exam	40 Points	Will be announced by the registrar

General Notes: **HU attendance rules will be applied.**

Prepared by: Eng. Suzan albataineh