



**The Hashemite University  
Faculty of Engineering  
Civil Engineering Program  
Course Syllabus**



<b>Course Title:</b>	Engineering Hydrology	<b>Course Number:</b>	110401454
<b>Designation:</b>	Compulsory	<b>Prerequisite(s):</b>	
<b>Instructor:</b>	Dr. Zeyad Tarawneh	<b>Instructor's e-mail:</b>	zeyadt@hu.edu.jo
<b>Office Hours:</b>	Refer to posted time table		
<b>Class schedule:</b>	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 snow melt. 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
<b>Total</b>	<b>15</b>	<b>30</b>

\*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 e**).
- Observe and gain knowledge related to contemporary issues in hydrology.

**Student Outcomes (SO) Addressed by the Course:**

#	Outcome Description	Contribution
<b>General Engineering Student Outcomes</b>		
(a)	an ability to apply knowledge of mathematics, science, and engineering	
(b)	an ability to design and conduct experiments, as well as to analyze and interpret data	
(c)	an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	
(d)	an ability to function on multidisciplinary teams	
(e)	an ability to identify, formulate, and solve engineering problems	H (90)
(f)	an understanding of professional and ethical responsibility	
(g)	an ability to communicate effectively	
(h)	the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
(i)	a recognition of the need for, and an ability to engage in life-long learning	
(j)	a knowledge of contemporary issues	L (10)
(k)	an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	
<b>H= High, M= Medium, L= Low</b>		



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**Grading Plan:**

1st Exam	30 Points	<b>Mon. 26/2/2018</b>	<b>[9:30 - 10:20]</b>
2nd Exam	30 Points	<b>Mon. 2/4/2018</b>	<b>[9:30 - 10:20]</b>
Final Exam	40 Points	Will be announced by the registrar	

**General Notes:**

**HU attendance rules will be applied.**

**Prepared by:**

**Dr. Zeyad Tarawneh**

**Date: 30/1/2018**