

ACARA PERKULIAHAN

Mata Kuliah : Hidrologi I
 Kode Mata Kuliah :
 Kredit : 2 sks
 Semester : Ganjil
 Penanggung Jawab : Rakhmat Yusuf, MT.

T.M	Pokok Bahasan	Sub Pokok Bahasan	Buku Acuan
1	Pendahuluan	<ul style="list-style-type: none"> • ruang lingkup hidrologi dalam perencanaan pekerjaan sipil • siklus hidrologi 	Chow, V.T., Chapter 1 Sri Harto, Bab I Maidment, Part 1 Ch. 1
2	Presipitasi	<ul style="list-style-type: none"> • Pengukuran hujan • Hujan rata-rata DAS • Perkiraan data yg hilang • Pengolahan Data Hujan 	Chow, V.T., Chapter 3 Sri Harto, Bab III Maidment, Part 1 Ch. 3
3	Analisis Frekuensi	<ul style="list-style-type: none"> • Distribusi Normal • Distribusi Log-Normal 	Chow, V.T., Chapter 12 Sri Harto, Bab X Maidment, Part 2 Ch.18
4	Analisis Frekuensi	<ul style="list-style-type: none"> • Distribusi Log-Pearson III • Distribusi Gumbel 	Chow, V.T., Chapter 12 Sri Harto, Bab X Maidment, Part 2 Ch.18
5	Hidrometri	<ul style="list-style-type: none"> • Pengertian Umum • Alat Ukur Tinggi Muka Air • Cara Pengukuran 	Chow, V.T., Chapter 6 Sri Harto, Bab VI Soewarno
6	Hidrometri	<ul style="list-style-type: none"> • Liku Kalibrasi/lengkung debit 	Chow, V.T., Chapter 6 Sri Harto, Bab VI Soewarno
7	Perhitungan Debit Banjir	<ul style="list-style-type: none"> • Data dan persyaratan • Perhitungan debit banjir 	SK SNI M-18-1989-F
8	UJIAN TENGAH SEMESTER		
9	Evaporasi	<ul style="list-style-type: none"> • Pengukuran dan Perkiraan • Metode-metode perhitungan • Evapotranspiration • Pengukuran evaporasi 	Chow, V.T., Chapter 3 Sri Harto, Bab IV Maidment, Part 1, Ch. 4
10	Infiltrasi	<ul style="list-style-type: none"> • Pengukuran dan perkiraan • Hujan efektif • GREEN-AMPT Method 	Chow, V.T., Chapter 4 Sri Harto, Bab V Maidment, Part 1, Ch. 5
11	Hidrograf & Unit Hidrograf	<ul style="list-style-type: none"> • Pengertian Umum • Hidrograf Satuan • Konsep translasi dan konsep tampungan 	Chow, V.T., Chapter 7 Sri Harto, Bab VII Maidment, Part 1 Ch. 9
12	Hidrograf Satuan Sintetik	<ul style="list-style-type: none"> • Hidrograf Satuan Sintetik • Unit Hidrograf untuk durasi hujan yg berbeda 	Chow, V.T., Chapter 7 Sri Harto, Bab VII Maidment, Part 1 Ch. 9
13	Routing Banjir	<ul style="list-style-type: none"> • Model Routing • Lumped Flow Routing • Distributed Flow Routing 	Chow, V.T., Ch. 8, 9, 10 Sri Harto, Bab VII Maidment, Part 1 Ch. 10

14	Aliran Air Tanah	<ul style="list-style-type: none"> • Akuifer bebas & akuifer terkekang • Hydraulics potential & fluid flux • Hydraulics properties pd media poreus 	Chow, V.T., Chapter 2 Sri Harto, Bab XII Maidment, Part 1 Ch. 6
15	Aliran Air Tanah	<ul style="list-style-type: none"> • Steady-state hydrogeologic simulation models • Perhitungan parameter hydrogeologi 	Chow, V.T., Chapter 2 Sri Harto, Bab XII Maidment, Part 1 Ch. 6
16	UJIAN AKHIR SEMESTER		

Daftar Pustaka :

Buku/Bacaan Wajib (BW)

1. Chow, V.T. et al, 1988, *Aplied Hydrology*, McGraw-Hill Book Co., Singapore.
2. Sri Harto, 1993, *Analisis Hidrologi*, Gramedia, Jakarta.

Buku/Bacaan Anjuran (BA)

1. Maidment, D.R., 1993, *Handbook of Hydrology*, McGraw-Hill Inc., New York.
2. Linsley et al., *Hidrologi Untuk Insinyur*, Jakarta, Erlangga.
3. Haan C.T., 1977, *Statistical Method in Hydrology*, The Iowa State University Press, Iowa.
4. Soewarno, 1991, *Hidrologi Pengukuran dan Pengolahan Data Aliran Sungai (Hidrometri)*, Bandung, Nova.
5. Journal Water Research Resource