

4.	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali makna air sebagai sumberdaya ekonomi	Air : Sumberdaya ekonomi	2. Utilitas dan Nilai Sumberdaya Air 3. Kelangkaan dan harga sumberdaya air 4. Mekanisme pasar sumberdaya air 5. Variabel valuasi: Kuantitas, kualitas, temporer dan nilai lokasi	TM + TSM	3 x 50	30; 1; 6; 7
5.	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali makna air sebagai sumberdaya alir	Air: Sumberdaya Air	1. Karakteristik dan Kualitas 2. Eksternalitas dan biaya sosial 3. Property right dan dampak sosial-ekonominya 4. Institutional building	TM	3 x 50	27 21 8
6.	sda	sda	The utilization strategy: 1. An ecological-economic approach 2. An optimal allocation: - Inter temporer - Multi-locations - Multi-activities - Diverse Quality Constraints 3. Instrumen simulasi	TM + TSK	3 x 50	1 45 5 15
7.	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali penggunaan indikator, peubah dan indeks kualitas sumberdaya air	Sumberdaya air: Peubah dan indeks kualitas	1. Natural vegetation 2. Wetland vegetation 3. Zoo-plankton 4. Phyto-plankton 5. Fish & Fisheries 6. Intertidal 7. Benthos 8. Water Fowl 9. Stream & Lake 10. River swamp 11. Species diversity	TM + TSM	3 x 50	7 8 19 46
8.	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali prinsip-prinsip kebijakan pengelolaan sumberdaya air	Water Resource Management Policy	1. Ide-ide manajemen 2. Model-model Pembuatan kebijakan 3. Techniques of Resource Management: 3.1. Problem identification 3.2. Resource Inventories 3.3. Suitability Analysis 3.4. Carrying Capacity 3.5. Benefit-Cost Analysis 3.6. Risk analysis / Assessment	TM + TSM	3 x 50	2 4 9 26 42

9.	Setelah mengikuti kuliah ini mahasiswa mampu memahami & menjelaskan kembali prinsip-prinsip kebijakan pengelolaan sumberdaya air	Water Resource Management Policy	4. EIA and evaluation of water resources project 5. Water pollution control policies	TM	3 x 50	4; 8; 13; 16;
10	UTS	UTS				
11	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali kualitas air dan pengendaliannya dalam ekosistem DAS	Water quality in catchment ecosystem	1. Ekonomi kualitas air 2. Prinsip pemodelan kualitas air 3. Dampak ekologis perubahan kualitas air DAS 4. Kualitas air dan kesehatan 5. Indeks kualitas air 6. Kontrol kualitas air	TM + TSM	3 x 50	9 13 14 29 44
12	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali model-model ekosistem dalam manajemen air	Model Ekosistem dalam Pengelolaan Sumberdaya Air	1. Pendekatan sistem & problem solving 2. Goals of WRM: - Economic goals - Ecological goals 3. Models for design 4. Cost-Benefit & Optimization	TM + TSM	3 x 50	30; 31; 1; 5 9
13	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami, menjelaskan kembali dan menggunakan instrumen simulasi	Simulation instrument in WRM	1. Pendekatan sistem dalam WRM: 1.1. Multi-objective problems 1.2. Objective function 1.3. Constraint equation 1.4. Mathematical modelling	TM + TSK	3 x 50	33 5 15 34
14	sda	sda	2. Economic resource allocation: 2.1. Cost of production 2.2. Pricing strategies 2.3. Allocation principles 2.4. Programming 3. Decision analysis: 3.1. Analysis of public project 3.2. Uncertainty 3.3. Consideration in project planning 3.4. Experimentation	TM + TSM	3 x 50	1; 31; 24; 45 42

15	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali efisiensi air dalam produksi pertanian	Efisiensi penggunaan air dalam produksi pertanian	<ol style="list-style-type: none"> 1. Crop water requirement 2. Cropping strategies 3. Yield and water-use relationship 4. Soil management 5. Irrigation option: <ul style="list-style-type: none"> - Scheduling - Water application - On-farm allocation 	TM + TSM	3 x 50	12 20 35 36 38 40 41
16	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali respon hasil tanaman terhadap air	Crop yield response to water	<ol style="list-style-type: none"> 1. Yield and water: <ol style="list-style-type: none"> 1.1. Maximum yield 1.2. Actual yield 1.3. Application in irrigation project 2. crop and water <ol style="list-style-type: none"> 2.1. Crop requirement 2.2. Water supply - yield 2.3. Water uptake 2.4. Prinsip irigasi 3. The selected crops 	TM + TSM	3 x 50	11 12 43 37 39
17	Setelah mengikuti kuliah bagian ini mahasiswa mampu memahami dan menjelaskan kembali Kaidah-kaidah Neraca Sumberdaya Air Daerah	Neraca Sumberdaya Air (NSA)	<ol style="list-style-type: none"> 1. Pengertian dan batasan 2. Penyusunan NSA 3. Mekanisme penyusunan 4. Kerangka NSA: <ul style="list-style-type: none"> - Klasifikasi - Inventarisasi - Bentuk NSA 5. Teknis penyusunan NSA 	TM + TSK	3 x 50	3 42 28 23 46
18	UAS	UAS				

KETERANGAN: TM = kegiatan tatap muka (presentasi; ceramah, diskusi, tanya-jawab; penjelasan/pembahasan); TSM = tugas terstruktur mandiri/individual; TSK= tugas terstruktur kelompok (3-4 orang); UTS= ujian tengah semester; UAS= ujian akhir semester.

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