

**INDUSTRIAL WASTEWATER TREATMENT COURSE  
PART 1 OUTLINE (45 HOURS)**

<b>Meeting #</b>	<b>Topic</b>	<b>Reference</b>
1.	Math Review: Geometry, Conversions, solving for "x", Exponents and Averaging	Vol. 1 & 2/Appendix
2.	Math cont'd: Volumes, Detention Times	Vol. 1 & 2/Appendix
3.	Math cont'd: Pumps, Power & Efficiencies, Hydraulics Wet wells	Vol. 1 & 2/Appendix
4.	Math cont'd: Process tank characteristics, % Capture Removals, Solutions, Dilutions, Pound Calculations	Vol. 1 & 2/Appendix
5.	Lab Procedures & Basic Chemistry	Vol. 2/Ch. 16
6.	Preliminary & Primary Treatment	Vol. 1/Ch. 4 & 5
7.	Trickling Filters & Rotating Biological Contactors (RBCs)	Vol. 1/Ch, 6 & 7
8.	Stabilization Ponds & Lagoons	Vol. 1/Ch. 9
9.	TEST; Maintenance & Safety	Vol. 2/Ch. 14 & 15
10.	Introduction to Activated Sludge	Vol. 1/Ch. 8
11.	Conventional Activated Sludge Treatment	Vol. 2/Ch. 11
12.	Site Visit	
13.	Types and Methods of Disinfection & Effluent Disposal	Vol. 1/Ch.10 & Vol. 2/Ch.13
14.	Sludge Digestion, Solids Handling & Disposal	Vol. 2/Ch. 12
15.	TEST; Maintaining Records & Data	Vol. 2/Ch. 18 & 19

Part 1 Course Texts: Operation & Maintenance of Wastewater Treatment Plants Volumes 1 & 2, Ken Kerri/University of California-Sacramento, 5<sup>th</sup> edition or later

**INDUSTRIAL WASTEWATER TREATMENT COURSE  
PART 2 OUTLINE (45 HOURS)**

<b>Meeting #</b>	<b>Topic</b>	<b>Reference</b>
1.	Intro to Industrial Waste Treatment & Math Review	Vol. 1/Ch. 1-4
2.	Industrial Waste Treatment Processes	Vol. 1/CH. 5
3.	Industrial Waste Treatment Processes	Vol. 1/CH. 5
4.	Flow Measurement & Instrumentation	Vol. 1/Ch. 6 & 12
5.	Preliminary Treatment	Vol. 1/Ch. 7
6.	Physical-Chemical Treatment	Vol. 1/Ch. 8
7.	Filtration, Physical Treatment	Vol. 1/CH. 9 & 10
8.	TEST, Treatment of Metal Wastestreams	Vol.1/Ch. 11 & Treatment of Metal Wastestreams Less. 1
9.	Metal Wastestreams Methods of Treatment	Metal Wastestreams Less. 2
10.	O & M	Metal Wastestreams Less. 3
11.	Biological Treatment	Vol. 2/Ch. 2-6
12.	Biological Treatment	Vol. 2/Ch. 2-6
13.	Residuals Management	Vol. 2/Ch. 7
14.	Regulations	
15.	TEST	

Part 2 Course Texts:

Industrial Waste Treatment Volumes 1 & 2, Ken Kerri/University of California-Sacramento, Second edition or later.

Treatment of Metal Wastestreams, Ken Kerri/University of California-Sacramento, Third edition or later.

Statutes & Regulations for Operators

NJPDES regulations

Sludge Quality Assurance Regulations

RCRA Manifest System & Reporting Requirements