

São Paulo Advanced School on Integrated Water Resources Management

September, 01st – 15th, 2017.

São Carlos – São Paulo State – Brazil

PROGRAMME OF ALL LECTURES

Date: 01/09	Date: 02/09		Date: 03/09		Date: 04/09	
Hour	Subject	Hour	Subject	Hour	Subject	
Arrival of participants	08:30 - 09:30	Opening ceremony FAPESP/Inter American NetWork of Academies of Science Chairman of School - Presentation of School Programme	08:30 - 09:30	Lecture 6: Dr. Gabriel Roldan Aquatic plants: biology and dynamical interactions	08:30 - 09:30	Lecture 12: Dra. Blanca Jimenez Climate change: challenges for water resources managers
	09:30 - 10:30	Lecture 1: Dr. Gabriel Roldán Understanding the freshwater ecosystems their assemblages and function	09:30 - 10:30	Lecture 7: Dra. Blanca Jimenez Water Reuse for Agriculture	09:30 - 10:30	LECTURE 13: Dra. Blanca Jimenez Conventional treatment - Advanced treatment
	10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break
	10:45 - 12:00	Lecture 2: Dr. José Galizia Tundisi Water Quality	10:45 - 12:00	Lecture 8: Dra. Virgínia Ciminelli Minerals, metals and water: complexation, dissolution and precipitation reactions	10:45 - 12:00	Lecture 14: Dra. Virginia Ciminelli Minerals, metals and water: redox reactions
	12:00 - 13:30	Lunch	12:00 - 13:30	Lunch	12:00 - 13:30	Lunch
	13:30 - 14:30	Lecture 3: Dr. Silvio Crestana The importance of agriculture related to the management of water resources	13:30 - 14:30	Lecture 9: Dr. Silvio Crestana The nexus: water-food-energy and agricultural production systems	13:30 - 14:30	Lecture 15: Dra. Blanca Jimenez Urban water cycle
	14:30 - 15:30	Lecture 4: Dra. Blanca Jimenez Water Reuse: Options and current practices	14:30 - 15:30	Lecture 10: Dr. Ernesto Gonzalez Fundamentals of Limnology	14:30 - 15:30	Lecture 16: Dr. Odete Rocha The diversity of life: biodiversity types in species genetic and ecosystem diversity
15:30 - 15:45	Coffee break	15:30 - 15:45	Coffee break	15:30 - 15:45	Coffee break	
15:45 - 17:30	Lecture 5: Dr. Virginia Ciminelli Minerals engineering and water resources	15:45 - 17:30	Lecture 11: Dra. Blanca Jimenez SDGs, NEXUS and International Initiatives	15:45 - 17:30	Lecture 17: Dra. Blanca Jimenez Use of treated wastewater for aquaculture - Use of treated wastewater for industries	
17:30 - 18:30	ADDITIONAL LECTURE: Dra. Katherine Vammen The Great Nicaraguan Tropical Lake - Lago Cocibolca	17:30 - 18:30	ADDITIONAL LECTURE: Dra. Katherine Vammen Development, Achievements and Perspectives of the Water Programme of the Interamerican Network of Academies of Science	17:30 - 18:30	Summary and discussion of the day lectures. All lectureurs and students	
Receptions						

Date: 05/09		Date: 06/09		Date: 07/09	
Hour	Subject	Hour	Subject	Hour	Subject
08:30 - 09:30	LECTURE 18: Dra. Blanca Jimenez	08:30 - 09:30	Lecture 24: Dra. Virginia Ciminelli	08:30 - 09:30	LECTURE 30 and 42: Dra. Blanca Jimenez
	Communicable diseases		Assessment of potential impact of mineral tailings in water quality		Water initiatives: water and sustainable development goals. Water nexus and science perspective International Water Agenda: Water Cooperation/Water Diplomacy
09:30 - 10:30	Lecture 19: Dr. Silvio Crestana	09:30 - 10:30	Lecture 25: Dra. Virginia Ciminelli	09:30 - 10:30	LECTURE 31 and 32: Dr. Silvio Crestana
	The state of the research and management of water resources in agriculture: some examples		Risks and advances in improving water management in the mineral industry		Opportunities for international cooperation - Discussion and proposals Capacity building - Discussion and proposals
10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break
10:45 - 12:00	Lecture 20: Virginia Ciminelli	10:45 - 12:00	LECTURE 26: Dr. Ernesto Gonzalez	10:45 - 12:00	Lecture 33: Ernesto Gonzalez
	Minerals, metals and water: kinetic factors		Eutrophication: history, definition, causes and consequences		Examples of eutrophication of lakes and reservoirs and their recovery. Study cases in Venezuela
12:00 - 13:30	Lunch	12:00 - 13:30	Lunch	12:00 - 13:30	Lunch
13:30 - 14:30	Lecture 21: Dr. Odete Rocha	13:30 - 14:30	Lecture 27: Dr. Silvio Crestana	13:30 - 14:30	Lecture 34: Dra. Odete Rocha
	Factors hypothesized to influence diversity		Examples of sustainable technologies to manage water resources in agriculture		Practical exercises in biodiversity measurement
14:30 - 15:30	LECTURE 22: Dr. José Galizia Tundisi	14:30 - 15:30	LECTURE 28: Dr. Gabriel Roldan	14:30 - 15:30	Lecture 35: Dr. Gabriel Roldan
	Watersheds: Interaction of components, management		Proposal for integrated water management: conservation, use and recovery		Integral management of the water in the Municipality of El Retiro
15:30 - 15:45	Coffee break	15:30-15:45	Coffee break	15:30 - 15:45	Coffee break
15:45 - 17:30	Lecture 23: Dra. Blanca Jimenez	15:45 - 17:30	Summary and discussion of the day lectures.	15:45 - 17:30	Summary and discussion of the day lectures.
	Potable and non potable reuses – Role and constraints of regulation for reuse		All lecturers and students		All lecturers and students
17:30 - 18:30	Summary and discussion of the day lectures.	17:30 - 18:30	Summary and discussion of the day lectures.	17:30 - 18:30	Summary and discussion of the day lectures.
	All lecturers and students		All lecturers and students		All lecturers and students

Date: 08/09		Date: 09/09		Date: 10/09	
Hour	Subject	Hour	Subject	Hour	Subject
08:30 - 09:30	Lecture 36: Dra. Gabriel Roldán	08:30 - 09:30	Lecture 46: Dr. Gabriel Roldan	08:30 - 09:30	Lecture 48: Dr. Carlos Bicudo
	Reservoirs: Limnology, eutrophization, and management plans		Aquatic macroinvertebrates as bioindicator of water quality		Case study: Eutrophication of Garça Lake, SP: Causes and consequences
09:30 - 10:30	Lecture 37: Dra. Blanca Jimenez	09:30 - 10:30	Lecture 43: Dr. Ernesto Gonzalez	9:30 - 10:30	Lecture 49: Dr. Wilson Tadeu Lopes da Silva
	Climate change: adaptation, vulnerability and managing risks		Eutrophication indexes		Rural Basic Sanitation: Technical and Social aspects
10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break
10:45 - 12:00	Lecture 38: Dra. Odete Rocha	10:45 - 12:00	Lecture 44: Dr. José Galizia Tundisi	10:45 - 12:00	Lecture 50: Dr. Wilson Tadeu Lopes da Silva
	Measurements and scales of diversity		Case study: the Barra Bonita reservoir (Middle Tietê River)		Recycling of treated sewage water in agriculture according to the sustainability point of view
12:00 - 13:30	Lunch	12:00 - 14:30	Lunch	12:00 - 13:30	Lunch
13:30 - 14:30	Lecture 39: Dr. Ernesto Gonzalez			13:30 - 14:30	Lecture 51: Dr. Ernesto Gonzalez
	Lake and reservoir restoration from eutrophication	Management and evaluation of eutrophication			
14:30 - 15:30	Lecture 40: Dr. José Galizia Tundisi	14:30 - 15:30	Lecture 45: Dr. José Galizia Tundisi	14:30 - 15:30	Lecture 52: Dra. Odete Rocha
	Reservoirs: Limnology and ecology management		Integration of ecohydrology watershed economy and water management. - Presentations of excursions and thematic visits & field work		Biodiversity conservation
15:30 - 15:45	Coffee break	15:30 - 15:45	Coffee break	15:30 - 15:45	Coffee break
15:45 - 17:30	Lecture 41: Dr. José Galizia Tundisi	15:45 - 17:30	Lecture 47: Dr. Carlos Bicudo	15:45 - 17:30	Lecture 53: Dr. Donato Seiji Abe
	Case study: The Lobo/Broa reservoir and Itaqueri/Lobo watershed		Case study: 100 years of Guarapiranga reservoir, SP: lessons and challenges		Macro Scale evaluation of Brazilian water bodies in terms of ion and nutrient concentrations
17:30 - 18:30	Summary and discussion of the day lectures.	17:30 - 18:30	Summary and discussion of the day lectures.	17:30 - 18:30	Summary and discussion of the day lectures.
	All lectureurs and students		All lectureurs and students		All lectureurs and students

Date: 11/09		Date: 12/09		Date: 13/09	
Hour	Subject	Hour	Subject	Hour	Subject
08:30 - 09:30	Lecture 54: Dr. Ricardo Hirata Hydrogeological concepts applied to the groundwater exploitation management	08:30 - 09:30	Lecture 60: Dr. Maciej Zalewski Landscape management	08:00	Leave: Sao Carlos to Hydrographic Basin UHE of Carlos Botelho (Lobo-Broa)
09:30 - 10:30	Lecture 55: Dr. Ricardo Hirata Overexploitation versus sustainable groundwater development	09:30 - 10:30	Lecture 61: Dr. Maciej Zalewski Ecohydrology: systemic solutions for management		
10:30 - 10:45	Coffee break	10:30 - 10:45	Coffee break		
10:45 - 12:00	Lecture 56: Dr. Ricardo Hirata Fate and transport of contaminants in aquifers	10:45 - 12:00	Lecture 57: Dr. Maciej Zalewski Land water interactions		
12:00 - 13:30	Lunch	12:00 - 13:30	Lunch		
13:30 - 14:30	Lecture 62: Dr. Ricardo Hirata Aquifer and water sources quality protection	13:30 - 14:30	Lecture 58: Dr. Maciej Zalewski Basic concepts and definitions in the field of ecohydrology	18:00	Return at Sao Carlos
14:30 - 15:30	Lecture 63: Dr. Ricardo Hirata Groundwater management and governance	14:30 - 15:30	Lecture 64: Dr. Maciej Zalewski Ecohydrology: case studies, examples overall evaluation		
15:30 - 15:45	Coffee break	15:30 - 15:45	Coffee break		
15:45 - 17:30	Lecture 59: Dr. Donato Seiji Abe Changing of the biogeochemical conditions from the lotic to the lentic system: A case study of the construction of the Belo Monte Hydropower Reservoir in the Xingu River (Amazon Basin)	15:45 - 17:30	Lecture 65: Dr. Maciej Zalewski Stream and rivers management		
17:30 - 18:30	ADDITIONAL LECTURE: Dr. Pedro Gatti Subject: Environmental Basic Plan - Indigenous Component	17:30 - 18:30	Summary and discussion of the day lectures. All lectureurs and students		

Date: 14/09		Date: 15/09		Date: 16/09
Hour	Subject	Hour	Subject	Subject
08:00	Leave: Sao Carlos to Hydrographic Basin UHE of Barra Bonita - SP	08:30 - 09:30	Poster Session	Return of participants
		09:30 - 10:30	Poster Session	
		10:30 - 10:45	Coffee break	
		10:45 -12:00	Poster Session	
12:00 - 13:30	Lunch	12:00 - 13:30	Lunch	
		13:30 - 14:30	Poster Session	
		14:30 - 15:30	Poster Session	
		15:30 - 15:45	Coffee break	
		15:45 - 17:30	Evaluation of course	
18:00	Return at Sao Carlos	17:30 - 18:30	Closing ceremony cultural performances	