2014 Tentative Program

◆ **Arrival on Sept. 15 (Monday)**

Day 1	Time	Event & Lecture	Lecturer
Tues. Sept.16	9:00 – 10:00 AM	Opening and Orientation - Introduction on GIST, IEAEC & Workshop - Introduction of Trainees - Life in GIST - Q & A - Questionnaire Survey: Pre-test - Group Photo - Campus Tour	Jinsung Ra, Ken Widmer & Doeyon Kim
	10:30 – 11:00 AM	Lab Safety	Jinsung Ra & Ken Widmer
	11:00 – 12:00	Introduction on Water Quality and Parameters	Ken Widmer
	12:00 – 1:30 PM	Lunch	
	1:30 - 2:30 PM	Environmental Risk Assessment	Jinsung Ra
	2:30 - 4:30 PM	Water sampling, preservation, preparation, preparation of reagents	Jinsung Ra
Day 2	**Time**	**Event & Lecture**	**Lecturer**
Wed. Sept.17	9:00 – 12:00	Enumeration and Enrichment Methods I – Practical exercises for dilutions, spread plating, and Most Probable Number enumeration methods.	Ken Widmer

Wed. Sept.17	12:00 – 1:30 PM	Lunch	
	1:30 – 4:30 PM	Enumeration and Enrichment Methods II – Enumeration methods using spread playing Lab M plate sleeve media, membrane filtration methods, and the MPN Idexx system. - Exploration of culture techniques for more rapid processing of samples.	Ken Widmer
Day 3	**Time**	**Event & Lecture**	**Lecturer**
Thur. Sept.18	9:00 – 10:00	Enumeration and Enrichment Methods III – Interpretation of day 2 exercises.	Ken Widmer
	10:00 – 12:00	Sample Storage, Preparation for Laboratory Measurement, QA/QC	Jinsung Ra
	12:00 – 1:30 PM	Lunch	
	1:30 – 4:30 PM	Chemical Analysis: Organics and Inorganics	Jinsung Ra

Day 4	**Time**	**Event & Lecture**	**Lecturer**
Fri. Sept.19	9:00 – 12:00	Enumeration and Enrichment Methods III – Enumeration for bacterial counts using pour plating method. - Enumeration and detection of viral fecal indicator organisms by Double/Single agar layer methods for coliphage	Ken Widmer
	12:00 – 1:30 PM	Lunch	
	1:30 – 4:30 PM	Dose Response Analysis – Daphnia Toxicity Test	Jinsung Ra

Day 5	Time	Event & Lecture	Lecturer
Sat. Sept.20	9:00 – 9:30 AM	Enumeration and Enrichment Methods: Interpretation of Results from Day 4,	Ken Widmer
	9:30 – 11:00	Roundtable Discussion Session: Challenges in Water Quality in Home Country - Evaluation of Workshop exercise (group interview survey)	Ken Widmer & Doeyon Kim

Day 6	Time	Event & Lecture	Lecturer
Sun. Sept.21	Break		

Day 7	Time	Event & Lecture	Lecturer
Mon. Sept.22	9:00 – 12:00	Molecular Methods I – Exploration of Nucleic Acid Extraction methods, including a practical application. - An introduction and practical exercise on Polymerase Chain Reaction (PCR).	Ken Widmer
	12:00 – 1:30 PM	Lunch	
	1:30 – 3:00 PM	Environmental Water Quality Standards	Jinsung Ra
	3:00 – 4:30 PM	Field Sampling including Spike of Target Toxicant	Jinsung Ra

Day 8	Time	Event & Lecture	Lecturer
Tues. Sept.23	9:00 – 12:00	Molecular Methods II – Exploration of Nucleic Acid Extraction methods, including a practical application. - An introduction and practical exercise on Polymerase Chain Reaction (PCR) continued	Ken Widmer
	12:00 – 1:30 PM	Lunch	
	1:30 – 4:30 PM	Sample Preparation (pre-treatment) – SPE concentrator	Jinsung Ra

Day 9	Time	Event & Lecture	Lecturer
Wed. Sept.24	9:00 – 10:30	Molecular Methods III - Electrophoresis using traditional submerged gels	Ken Widmer
	10:30 – 12:00	Culture Regime of Daphnia Magna	Jinsung Ra
	12:00 – 1:30 PM	Lunch	
	1:30 – 4:30 PM	Daphnia Toxicity Test – 48hr immobilization test	Jinsung Ra
Day 10	**Time**	**Event & Lecture**	**Lecturer**
Thurs. Sept.25	9:00 – 12:00	Molecular Methods IV – Quantitative molecular methods using Real-Time PCR. Introduction of source tracking methodologies using Rep-PCR	Ken Widmer
	12:00 – 1:30 PM	Lunch	

Thurs. Sept.25	1:30 – 4:30 PM	Sample Analysis by ICP/MS, GC/MS, and LC/MS/MS - Principle and Application	Jinsung Ra & Seo-Young Kang

Day 11	Time	Event & Lecture	Lecturer
Fri. Sept.26	9:00 – 12:00	GC & GC/MS Lab Practice: Briefing the Instrument Injection of PAH standards Data Summary	Jinsung Ra & Seo-Young Kang
	12:00 – 1:30 PM	Lunch	
	1:30 – 3:30 PM	Daphnia Toxicity Test – 48hr immobilization test	Jinsung Ra
	3:30 – 4:30 PM	GC, GC/MS, and Toxicity Tests Data Summary	Jinsung Ra
	4:30 – 5:00 PM	Closing - Certificate - Questionnaire Survey: Post-test	Ken Widmer & Doeyon Kim
	6:00 – 8:00 PM	Dinner	

◆ **Departure on September 27 (Saturday)**