

NATIONAL UNIVERSITY OF SINGAPORE

Activity-Based Risk Assessment Form										
Name of Department	Geography			Location of Lab			x			
Name of Laboratory	x			Name of PI			Denitza D. Voutchkova			
Name of Researcher/LO	Denitza D. Voutchkova & all field trip participants			Name of Activity/Experiment			Field trip to Marina Barrage, part of GE4211			

No	Description/Details of Steps in Activity	Hazards	Possible Accident / Ill Health & Persons-at-Risk	Existing Risk Control (Mitigation)	Severity	Likelihood (Probability)	Risk Level	Additional Risk Control	Person Responsible	By (Date)
1	Walking for 1.5 km along the coastline from Marina South Pier MRT to Marina Barrage (pathway close to the coastal protection berm, shaded, no traffic)	Slips, trips, falls (drowning)	Superficial injuries e.g. abrasions, sprains, fractures; if falling in the water - drowning / everyone	Walk carefully, don't get close to the slope of the coastal protection.	3	1	3	Alertness during the walk; monitor students and remind them to stay away of the coastal protection berm.	all participants + PI	2-Apr-18
2	Environmental -- Dengue Fever (during entire trip)	Getting bitten by infected Aedes mosquito	Dengue fever / everyone	Wear long sleeved shirts and long pants; Use mosquito repellent. Currently there are no Dengue Clusters at the field trip location/route.	1	1	1	Check warning for Dengue Clusters prior the trip: http://www.nea.gov.sg/public-health/dengue/dengue-clusters	all participants + PI	2-Apr-18
3	Weather/Climate -- Dehydration (during walking to Marina Barrage, water stations present at the Marina Barrage and at South Pier MRT)	Dehydration	Lethargy, Light-headedness / everyone	Drink plenty of water/fluids; take frequent breaks;	1	2	2	Remind students to bring water bottles; Advise on buying water in case someone forgot to bring.	all participants + PI	2-Apr-18
4	Weather/Climate -- Sunburn (throughout entire trip, except when on ground floor at Marina Barrage)	Sunburn	Irritated skin, pink to red in color, blisters in extreme cases / everyone	Wear long sleeved clothing and a hat. Apply sun block with sun protection factor (SPF) of 30 or greater.	1	2	2	Regular stops in shaded areas will be made;	all participants + PI	2-Apr-18
5	Weather/Climate -- Heat Exhaustion (throughout entire trip)	Heat Exhaustion	Fatigue, excessive thirst, heavy sweating, cool clammy skin / everyone	Drink plenty of water/fluids; take frequent breaks; seek shaded areas	1	2	2		all participants + PI	2-Apr-18
6	Weather/Climate -- Heat Stroke (throughout entire trip)	Heat Stroke	Exhaustion, Light-headedness, Change in behaviour, loss of consciousness / everyone	Drink plenty of water/fluids; take frequent breaks; seek shaded areas	2	1	2		all participants + PI	2-Apr-18
7	Weather/Climate -- Extreme weather (while walking between Marina South Pier MRT & Marina Barrage)	Torrential rain and/or Lightning	can cause injury or death / everyone	Bring rain-coat; avoid high-ground and open spaces; seek shelter in/under Marina Barrage building; avoid holding metal objects, standing under tall trees; avoid using the telephone and other electrical appliances and equipment.	3	1	3	The weather forecast will be checked prior the trip;	all participants + PI	2-Apr-18
8	Other -- terrorism (while in public transport, especially MRT; at the Marina Barrage)	Terrorism	can cause injury or death / everyone	in the highly unlikely case of terrorist attack in the MTR or at Marina Barrage, all participants should follow safety guidelines provided by SPF	3	1	3	Students are advised to watch "Run, Hide, Tell" video by Singapore Police Force (SPF): https://www.facebook.com/singaporepoliceforce/videos/1015492938836440/	all participants + PI	2-Apr-18
9	Other -- getting lost	Other	can cause panic attack / everyone	Field trip plan with map and instructions will be provided prior to the trip; mobile cover is available, so Google Maps or similar can be used for navigation	1	1	1		all participants + PI	2-Apr-18
10	Other -- getting robbed	Other -- robbery	loss of property, stress / everyone	Students will always be in groups; Students are advised to be careful with their belongings and to be alert while in crowded areas.	1	1	1		all participants + PI	2-Apr-18

Conducted By

Denitza D. Voutchkova

Approved By

Name Denitza D. Voutchkova

Signature _____

Approval date _____

Next Revision date _____
(Maximum 3 years)

		Likelihood		
		Likely	Possibly	Unlikely
Severity	Low	3	2	1
	Med	6	4	2
	High	9	6	3

Risk = Likelihood x Severity

RISK	DECISION PROCESS
< 3	RISK ACCEPTABLE
3, 4	CONSIDER ADDITIONAL RISK CONTROL
> 4	ADDITIONAL RISK CONTROL REQUIRED

Likelihood

- 1 Unlikely
- 2 Possible
- 3 Very Likely

Not likely to occur (has not occurred in the PI's Lab or similar Lab setup.)
 Possible or known to occur (has occurred in the PI's Lab or Similar Lab setup.)
 Common or repeating occurrence (has occurred repetitively in the PI's Lab or similar Lab setup.)

Severity

- 1 Low
- 2 Medium
- 3 High

(e.g. No injury, injury or ill-health requiring first aid treatment only - includes minor cuts and bruises, irritation, ill-health with temporary discomfort)
 (e.g. Injury requiring medical treatment or ill-health leading to disability – includes lacerations, burns, sprains, minor fractures, dermatitis, deafness, work-related upper limb disorders)
 (e.g. Fatal, serious injury or life-treatening occupational disease – includes amputations, major fractures, multiple injuries, occupational cancer, acute poisoning and fatal diseases)

Severity - Consider the magnitude/severity of the consequences of the Risk Factor occurring and then list this as 3 (High), 2 (Moderate) or 1 (Low).
 Severity normally will not change unless there is a physical change to the equipment or process.

Likelihood - Team should rely upon their experience and consider realistic scenarios. Listed below are examples of factors that may be considered in determining the likelihood.

- Past experience / incidents
- Complexity of the activity
- Number of personnel involved in the activity (e.g. all personnel, a limited number of trained personnel, etc)
- Frequency of use or execution
- Degree of control (involvement of contractors)
- Strength/completeness of administrative controls
- Sufficiency/formality of training
- Other....