

**The College of Staten Island**  
**Department of Biology**

(I) Course: Life Sciences in Taiwan (4 credits)

Summer 2019

(II) Lead Faculty:

Dr. Chang-Hui Shen

Office – 6S-143

Phone – 718-982-3854

Email – [changhui.shen@csi.cuny.edu](mailto:changhui.shen@csi.cuny.edu)

(III) Guest Faculty:

4 faculty members from National Dong Hwa University

(IV) Text: Handouts will be given during the classes

(V) Prerequisite: N/A

(VI) Assessment: The grade will be based on the following:

– Presentation	30 %
– Quizzes/Homework	30 %
– Final examination and Final paper	40 %

1. Attendance in the Field Trip is mandatory.

2. Grades are not negotiable and the instructor is not willing to discuss your grade with you unless you believe there has been a transcription error in my records.

3. Students are expected to participate actively in each learning activity.

4. All students must adhere to the safety rules of the guideline.

6. Students will be assigned certain homework and research.

7. Responsibility for assigned tasks is an important attribute. All assignments are due at the beginning of class unless otherwise noted.

8. Students are expected to attend class and be present for all exams.

9. Students are expected to arrive on time for all activities.

10. Students are expected to sign and follow the code of conduct for this class.

## **Life Sciences in Taiwan**

### **LEARNING OUTCOMES**

- Demonstrate cognitive abilities appropriate to the college level.
- Demonstrate the life science knowledge competencies expected of college student.
- Demonstrate affective behaviors which are appropriate to the college student.
- Demonstrate the ability to use information technology to communicate and access life sciences information.
- Apply the scientific method to form hypothesis, predict outcomes, analyze results and refine conclusions.
- Describe correlations among structure, organization and function of cells.
- Understand the complexity and common themes of cellular processes.
- Integrate the knowledge of structure and function to explain the adaptation and evolution of diverse organisms.
- Understand the ecosystem and marine biology of Taiwan.
- Describe the unique life sciences in Taiwan.

## Life Sciences in Taiwan

Dr. Shen : [Changhui.shen@csi.cuny.edu](mailto:Changhui.shen@csi.cuny.edu)

Date	Schedule	Lecture Topics	Note
7/25-26 Friday	Depart NYC (7/25) and Arrive Taiwan (7/26)	2pm (7/26) meet at the airport (Arrival Lobby - North Meeting Point)	2:30 – 9:30 Tour of Taipei
7/27 Sat	9am-3pm Tour of Taipei		3-6pm Train to Hualien City 7pm arrive NDHU
	Breakfast at the Hotel		Dinner at NDHU
7/28 Sun	9am-12pm Lecture & Problem Solving	Themes in Biology Chemical Context for Life (3 hrs)	1:30pm Tour of NDHU and Hualien City
	Breakfast at NDHU		
7/29 Mon	9am-12pm Lecture & Problem Solving	Chemical Reactions for Life (3 hrs)	2pm Ecology Field Trip – Chihnan Forest Area & Liyu lake (3 hrs)
	Breakfast at NDHU		
7/30 Tue	9am-12pm Lecture & Problem Solving	Microorganisms in Our Daily Life (3 hrs)	2pm Optional class: Culture class – getting to know about Taiwan
	Breakfast at NDHU		
7/31 Wed	Field Trip to Lintian Mountain Forestry Center/Hakka Cultural Museum/Hualien Sugar Factory 9am-7pm	Natural Resources of Hualien (8 hrs)	
	Breakfast at NDHU		(Lunch included)
8/1 Thu	Field Trip to Taroko National Park 9 am - 7pm	Ecology of Taiwan (10 hrs)	
	Breakfast at NDHU (住宿處)		(Lunch included)
8/2 Fri	Field Trip to East Coast National Scenic Area –Ji-Qi Beach 9am – 7pm	Marine Ecology of East Taiwan (10 hrs)	
	Breakfast at NDHU		(Lunch included)

8/3 Saturday	Optional Field Trip: Xiuguluan River Rafting Trip		
	Breakfast at NDHU		
8/4 Sunday	Optional Field trip: Whale Watching		
	Breakfast at NDHU		
8/5 Monday	9am-12pm Lecture & Problem Solving	Introduction to Taiwan Ecology (3 hrs)	2pm Tour of Ecology Lab
	Breakfast at NDHU		
8/6 Tuesday	9am-12pm Lecture & Problem Solving	Introduction to Taiwan Ecosystem Ecology (3 hrs)	2pm Tour of Environmental research lab
	Breakfast at NDHU		
8/7 Wednesday	9am-12pm Lecture & Problem Solving Professor Chiou (NDHU) Or Natural Resource and Management	Stem cell and the medicine (3 hrs)	2pm Tour of Stem research lab
	Breakfast at NDHU		
8/8 Thursday	9am-12pm Lecture & Problem Solving	Epigenetics and medicine (3 hrs)	2pm Optional Cultural class – Taiwan indigenous culture class
	Breakfast at NDHU		
8/9 Friday	Field Trip to Hualien Agriculture Research Station 9am – 4pm	Agrobiology (6 hrs)	(Lunch included)
	Breakfast at NDHU (住宿處)		
8/10 Saturday	East Rift Valley National Scenic Area – Fuyuan Forest/Ruisui Ecocenter 9am – 6pm	Tropical Ecological Tour (10 hrs)	(Lunch included)
	Breakfast at NDHU		

8/11 Sunday	East coastline trip to Taitung/Pingtung	Maritime Ecological Tours (10 hrs)	Hotel at Pingtung
	Breakfast at NDHU (住宿處)		(Lunch included)
8/12 Monday	NDHU Marine Biology Station 9am-12pm Lecture & Problem Solving 1-3 pm Final exam and presentation	Introduction to Taiwan Marine biology (3 hrs)  Final exam (2 hrs)	Hotel at Pingtung
	4 pm Kenting Beach		(Lunch included)
8/13 Tuesday	9am-12pm Kenting National Park  2pm-5pm Taiwan Livestock Research Institute		Pingtung to Kaohsiung Hotel at Kaohsiung
8/14 Wednesday	Kaohsiung Tour	To Airport Arrive at 1:00pm Dismiss at the Airport	Depart Taiwan

This syllabus is subject to change depending upon the length of time it takes to complete, and possibly repeat, some of the exercises.

### **Presentation**

Each student is to select a field trip topic during this program period and give a 20 min presentation and critique in front of the class on the topic.

### **Final Paper**

Students are required to attend all planned excursions, events and lectures. Students are required to keep a journal report with daily entries in electronic format. Personal observations and insights are expected. The journal report is your final paper.