

# Why study **Environmental Science** at BNU-HKBU **United International College**



**For Prospective International Students**

# Today's global issue

# Sustainability!

Ecological habitat destruction  
Extinction of species & degradation of biodiversity  
Climate Change

Air, water, land, noise pollution  
Waste production  
Overexploitation of natural resources





# About Environmental Science

## ■ To learn:

- ❖ **How nature works**
- ❖ How people **connect** to the environment
- ❖ How to **prevent** environmental degradation
- ❖ How to **restore** the damaged environment

## ■ Scope:

- ❖ **Local, regional, and global**
- ❖ An **interdisciplinary** subject: science subjects (incl. biology, chemistry, statistics, mathematics, and physics etc.), social sciences, and business management subjects.



# Learn how we contribute to the 10 SDGs





## Why study Environmental Science @UIC ?

- ✓ **Curriculum**
- ✓ **Faculty and Staff**
- ✓ **Facilities, Environment and Location**
- ✓ **Student supports**

## Why study Environmental Science @UIC ?

- ✓ **Curriculum**
- ✓ Faculty and Staff
- ✓ Facilities, Environment and Location
- ✓ Student supports



## Key Features of the Curriculum

- 1. Comprehensive & Flexibility**
- 2. Interdisciplinary**
- 3. Balance**
- 4. International benchmarking**

## Key Features of the Curriculum

- 1. Comprehensive & Flexibility**
2. Interdisciplinary
3. Balance
4. International benchmarking



# Wide-range of Major Courses for Students' Choice

**Major required courses  
(55 units)**

**+**

**Major elective courses  
(18 units)**

**73 units**

Course Categories	No. of Courses
A. Fundamental Science Courses	9
B. Environmental Science Foundation Courses	10
C. Environmental Natural Science	6
D. Environmental Technology, Science and Engineering	8
E. Environmental Management, Humanity, and Social Science	8
F. Other courses in Environmental Study	4
G. Courses offered by other science programmes	4
H. Courses offered by business programmes	4

# Major Required Courses

## A. Fundamental Courses

Diversity of Life and Laboratory

General Biology

Microbiology

Conservation Ecology

General Chemistry

Biology and Ecology Laboratory

Chemistry Laboratory

Laboratory Safety

Introduction to Probability and Statistics

## B. Environmental Science Foundation Courses

Introduction to Planet Earth Science

Introduction to Environmental Science

Resources and the Environment

Environmental Health and Toxicology

Environmental Biotechnology and Laboratory

Sustainable Environmental Management

Environmental Study Laboratory

Atmospheric Science and Pollution

Hydrology and Water Engineering

Final Year Project I (ENVS)



# Major Elective Courses

## C. Environmental Natural Science

Biodiversity and the Extinction Crisis

The Ecology and Bioconservation in China

Biochemistry

Practical Biodiversity Conservation

Fundamentals of Biogeochemistry

Terrestrial and Aquatic Environments in China

## D. Environmental Technology, Science and Engineering

Biochemistry and Biotechnology Laboratory

Chemical Analysis

Introduction to Environmental Engineering

Environmental Chemistry and Pollution Control

Practical Environmental Analysis and Monitoring

Environmental Nanotechnology

Introduction to Geographic Information Systems for Environmental Management

Land Contamination and Remediation

# Major Elective Courses

## E. Environmental Management, Humanity, and Social Science

Climate Change

Introduction to Eco-cities

China's Environmental Law and International Cooperation Policy

Introduction to Occupational Health and Safety

Green Business Management

Integrated Solid Waste Management

Selected Topics in Environmental Science

ISO Generic Management Systems (ISO9001 & ISO14001) and Auditing

## F. Other courses in Environmental Study

Research Methods for Environmental Science and Studies

Final Year Project II (ENVS)

Internship in Environmental Science and Management

[GE Capstone course] Ecological Civilization in Greater Bay Community

## Key Features of the Curriculum

1. Comprehensive & Flexibility
- 2. Interdisciplinary**
3. Balance
4. International benchmarking



# Major Elective Courses (Interdisciplinary)

## G. Courses offered by other science programmes

Python Programming for Beginners

Linear Algebra I

Calculus for Science and Engineering

Principles of Physics

## H. Courses offered by business programmes

Principles of Accounting I

Principles of Macroeconomics

Principles of Microeconomics

Human Resource Management



## Key Features of the Curriculum

1. Comprehensive & Flexibility
2. Interdisciplinary
- 3. Balance**
4. International benchmarking

## Balanced proportion of course types

**15%** courses in natural sciences and maths

**30%** courses in Environmental Science

**20%** laboratory or practical courses in Environmental Science

**35%** courses in others (humanities, social science, and general education)

## Key Features of the Curriculum

1. Comprehensive & Flexibility
2. Interdisciplinary
3. Balance
4. International benchmarking

# Benchmarking **Globally Top** Env. Sci. Programmes

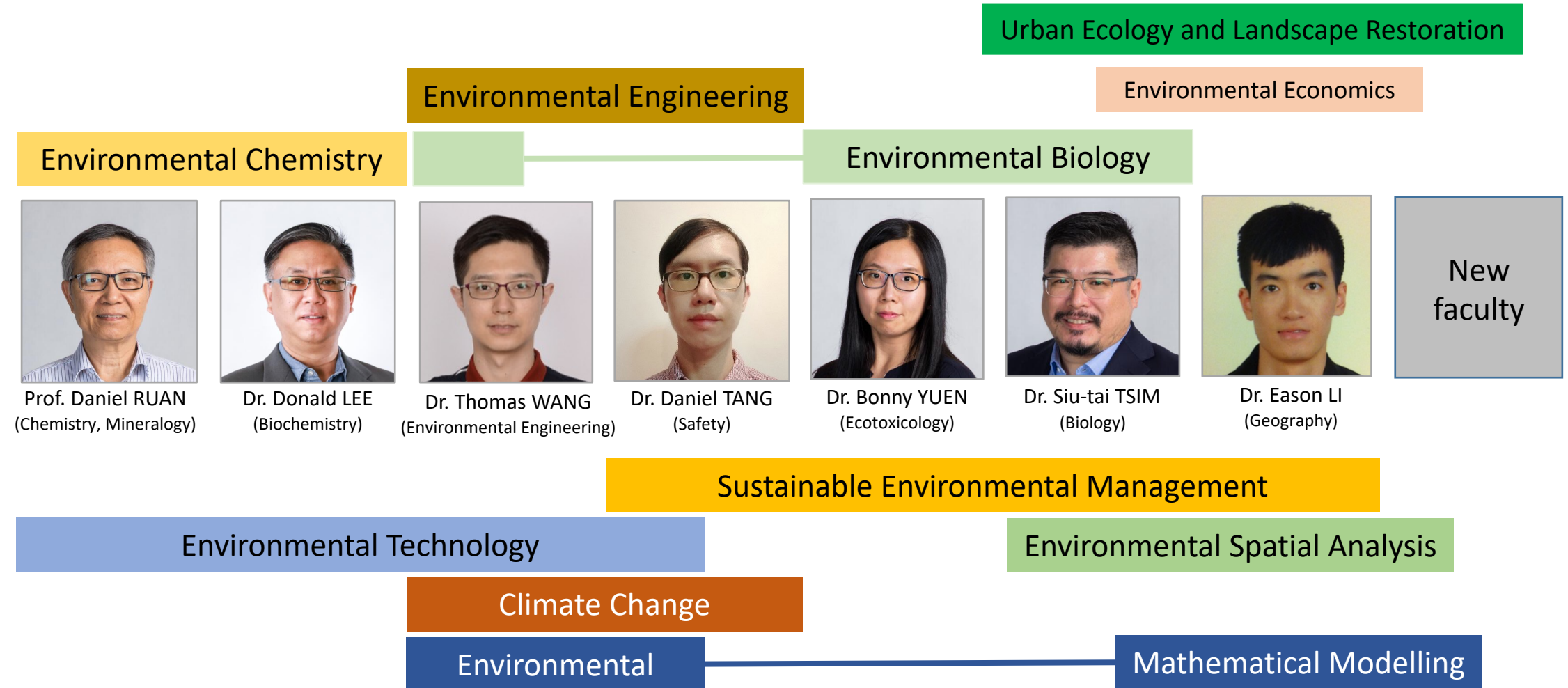
Regions	Universities	Remarks
North America	Yale University	<ul style="list-style-type: none"> <li>Globally top university</li> </ul>
Europe & UK	Wageningen University and Research	<ul style="list-style-type: none"> <li>Globally top Environmental Science Programme</li> </ul>
	Lancaster University (Lancaster Environmental Center)	<ul style="list-style-type: none"> <li>The oldest and very impactful environmental research centers in UK</li> </ul>
Australia	Australia National University	<ul style="list-style-type: none"> <li>Globally top university</li> </ul>
Hong Kong China	Hong Kong University	<ul style="list-style-type: none"> <li>Globally top university</li> </ul>
	Chinese University of Hong Kong	<ul style="list-style-type: none"> <li>Globally top university</li> </ul>
Mainland China	Nottingham University Ningbo	<ul style="list-style-type: none"> <li>Top Sino-overseas joint university in China</li> </ul>
	Xi'an Jiaotong – Liverpool University	<ul style="list-style-type: none"> <li>Top Sino-overseas joint university in China</li> </ul>



## Why study Environmental Science @UIC ?

- ✓ Curriculum
- ✓ **Faculty and Staff**
- ✓ Facilities, Environment and Location
- ✓ Student supports

# Our Academic Teaching Team



# Internationalization

Our professors' international working and research experiences help you to develop global vision and become success



## Our ENVS Academic Supporting Team

### Instructors

Ms. Sunshine CHEN  
Chemical Engineering



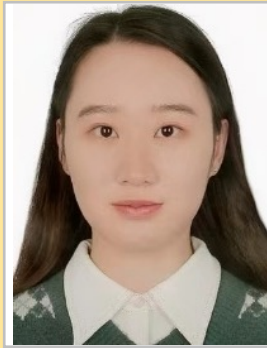
Ms. Shimei HE  
Environmental Science



Ms. Veronica GONG  
Botony  
Biotechnology



Ms. Yang LI  
Environmental Engineering  
ESG, LCA



### Lab Management Team

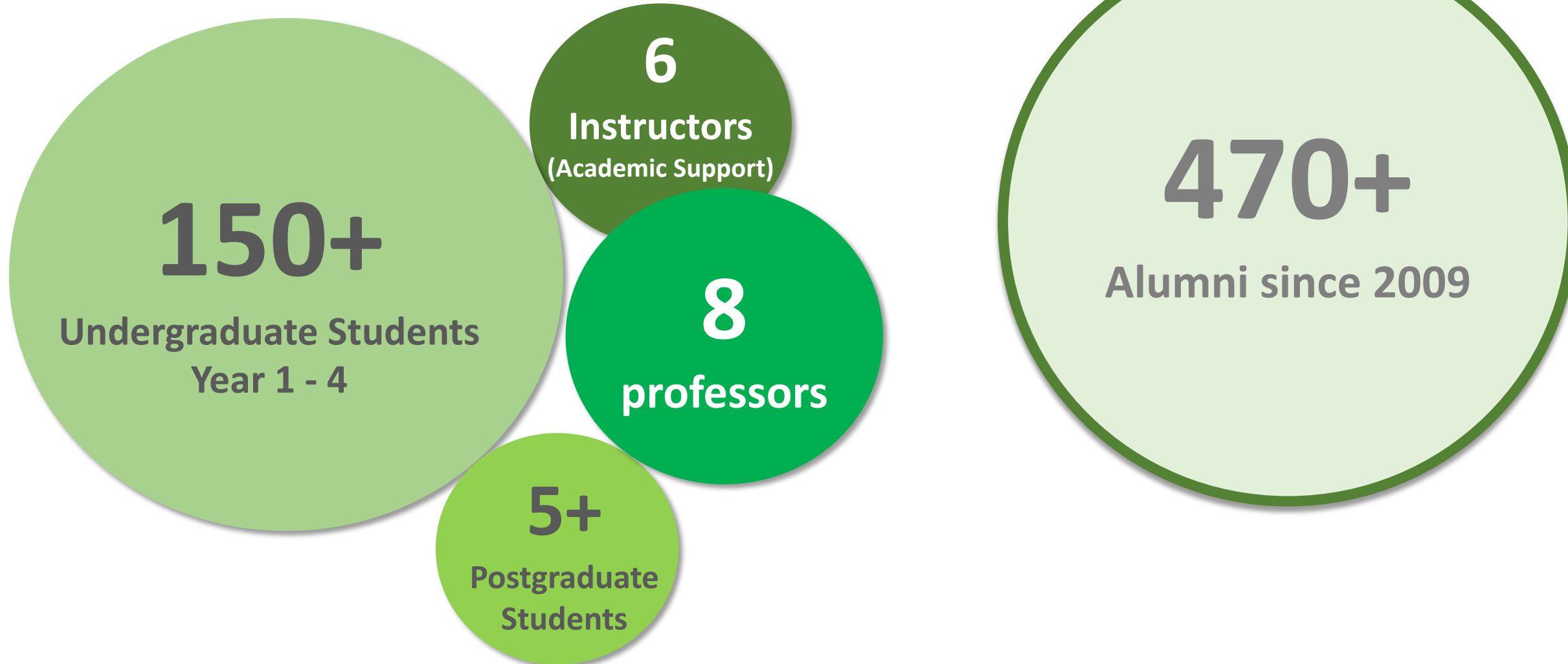
Mr. Car WU  
Chemistry  
Biology



Ms. Dorcas WANG  
Environmental Science  
Analytical Chemistry



## ENVS Community





## Why study Environmental Science @UIC ?

- ✓ Curriculum
- ✓ Faculty and Staff
- ✓ **Facilities and Environment**
- ✓ Student supports



**T8**

**(Life Sciences Building)**



**Mountains, woodlands, and  
historical village are  
the venues for learning**



# Laboratories in Environmental Science Programme

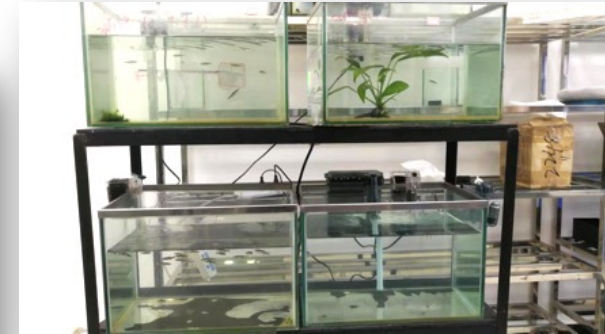
Research Lab.



Advanced Instrumental Analysis Lab.



Aquaculture Lab.



Microorganism & Fermentation Lab.



Env. Study Lab.  
& Chem. Lab.

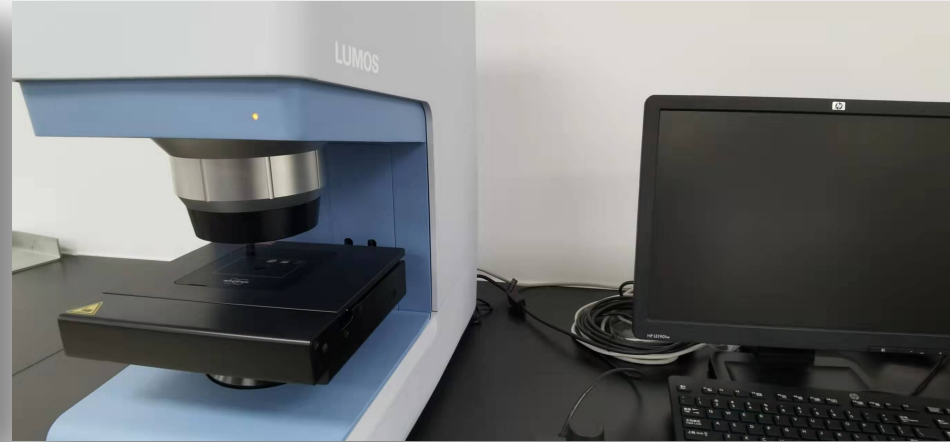


Biology & Ecology Lab.



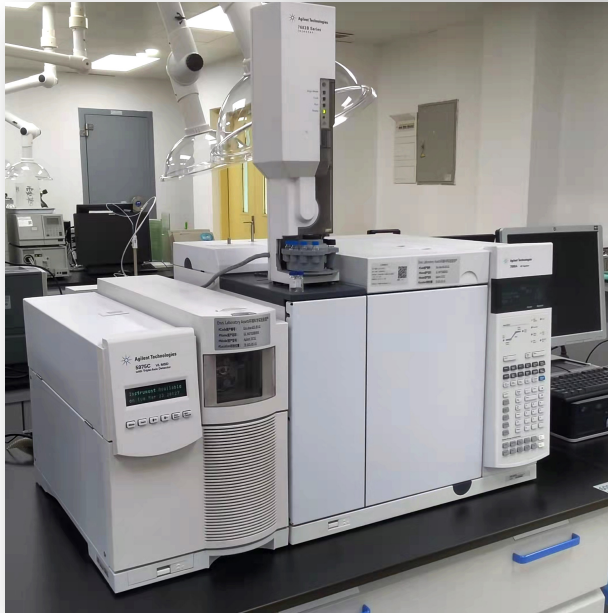
GIS facility

Inductively Coupled Plasma Optical  
Emission Spectrometer (ICP-OES)



Fourier Transform  
Infrared Spectroscopy  
(FTIR)

**Undergraduate  
students can use  
Modern  
Equipment**



Gas Chromatography Mass Spectrometry (GC-MS)



Surface Area Analyzer



High Performance Liquid Chromatography (HPLC)

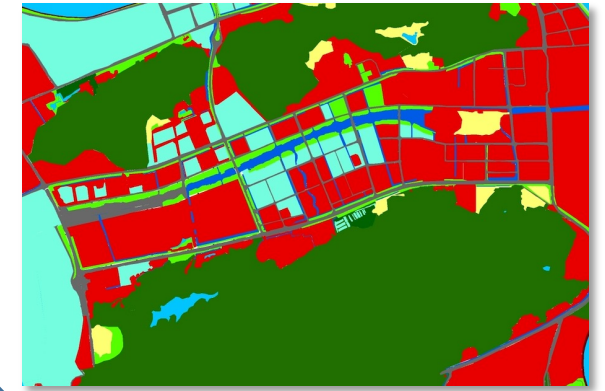


UAV  
(Unmanned Aerial Vehicle)



## Eco Data Hub

UIC Interdisciplinary Research Hub on  
Eco-Environmental Data of Zhuhai



Map



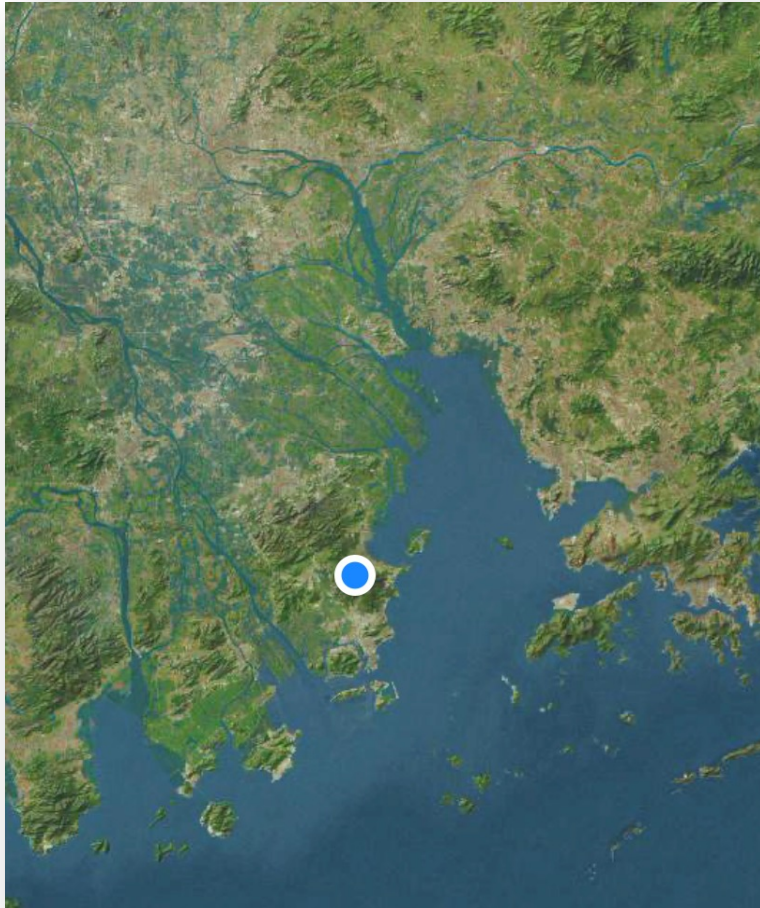
USV (Unmanned Surface Vehicle)



GIS Stations



# The Environment – Greater Bay Area





# The Environment – Zhuhai, a coastal city

Mangrove & Wetlands



Intertidal & Coastal area



Streams & Channels



Rice paddles & Agricultural fields



Orchard & Woodland



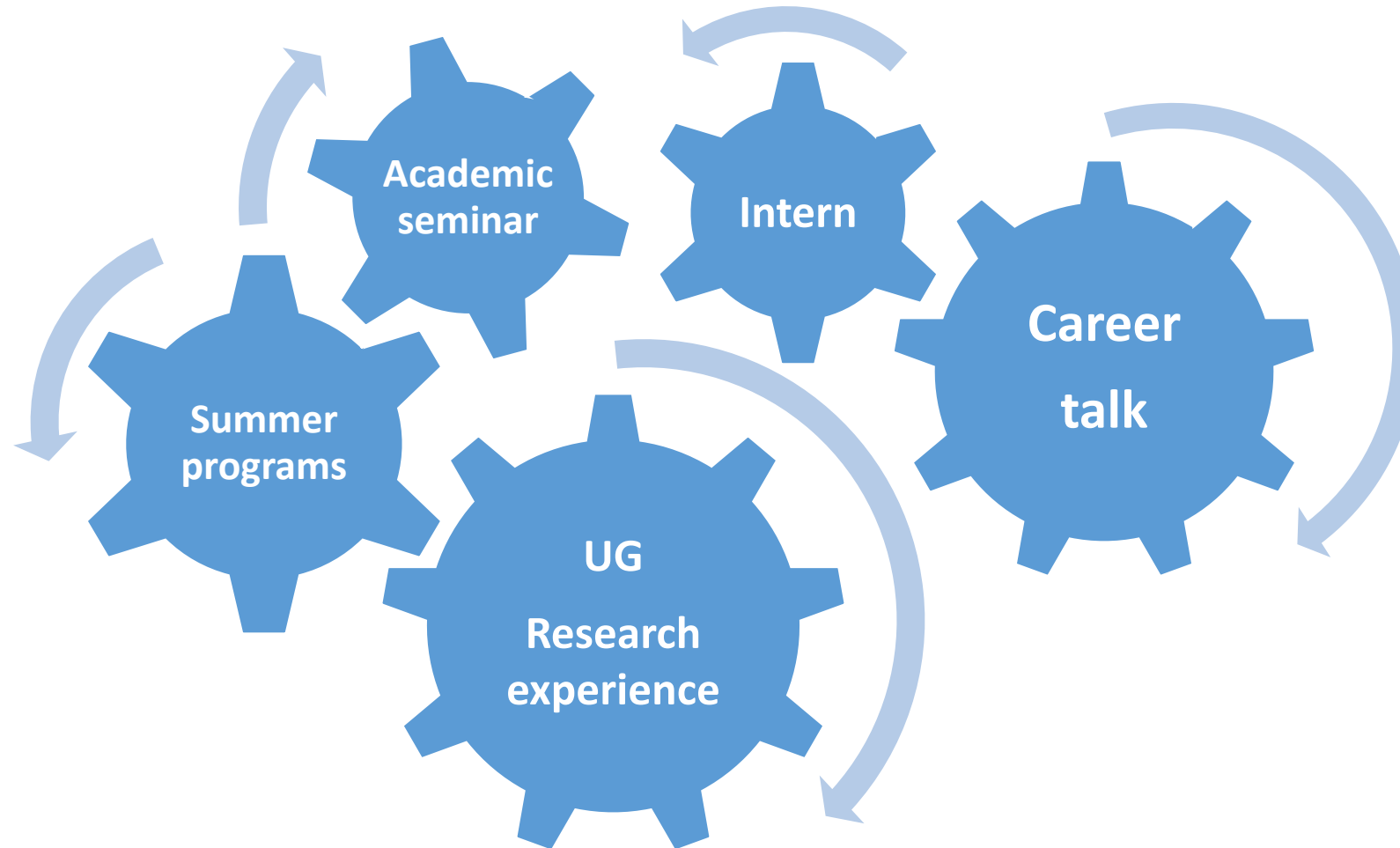
Livestock & Organic farm

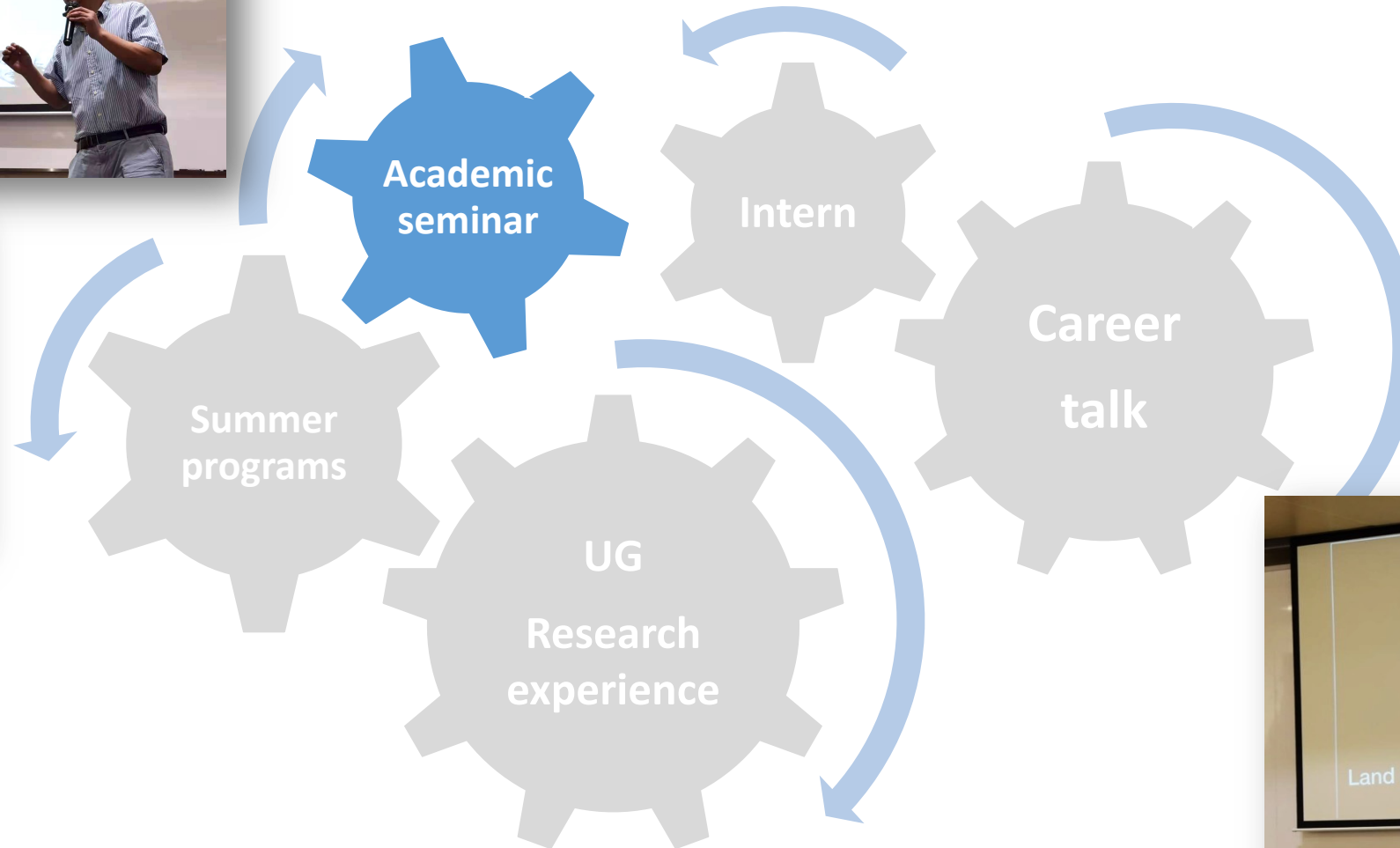
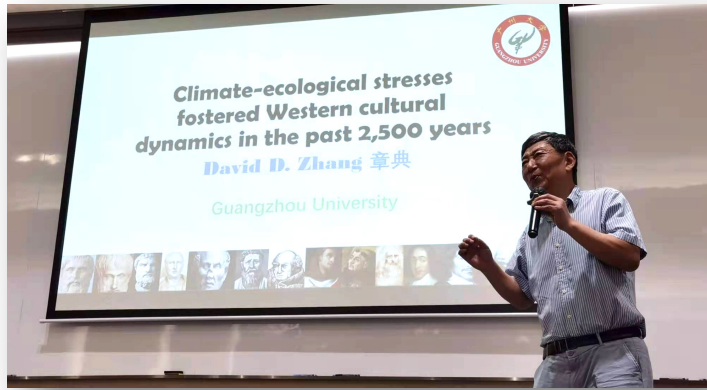
## Why study Environmental Science @UIC ?

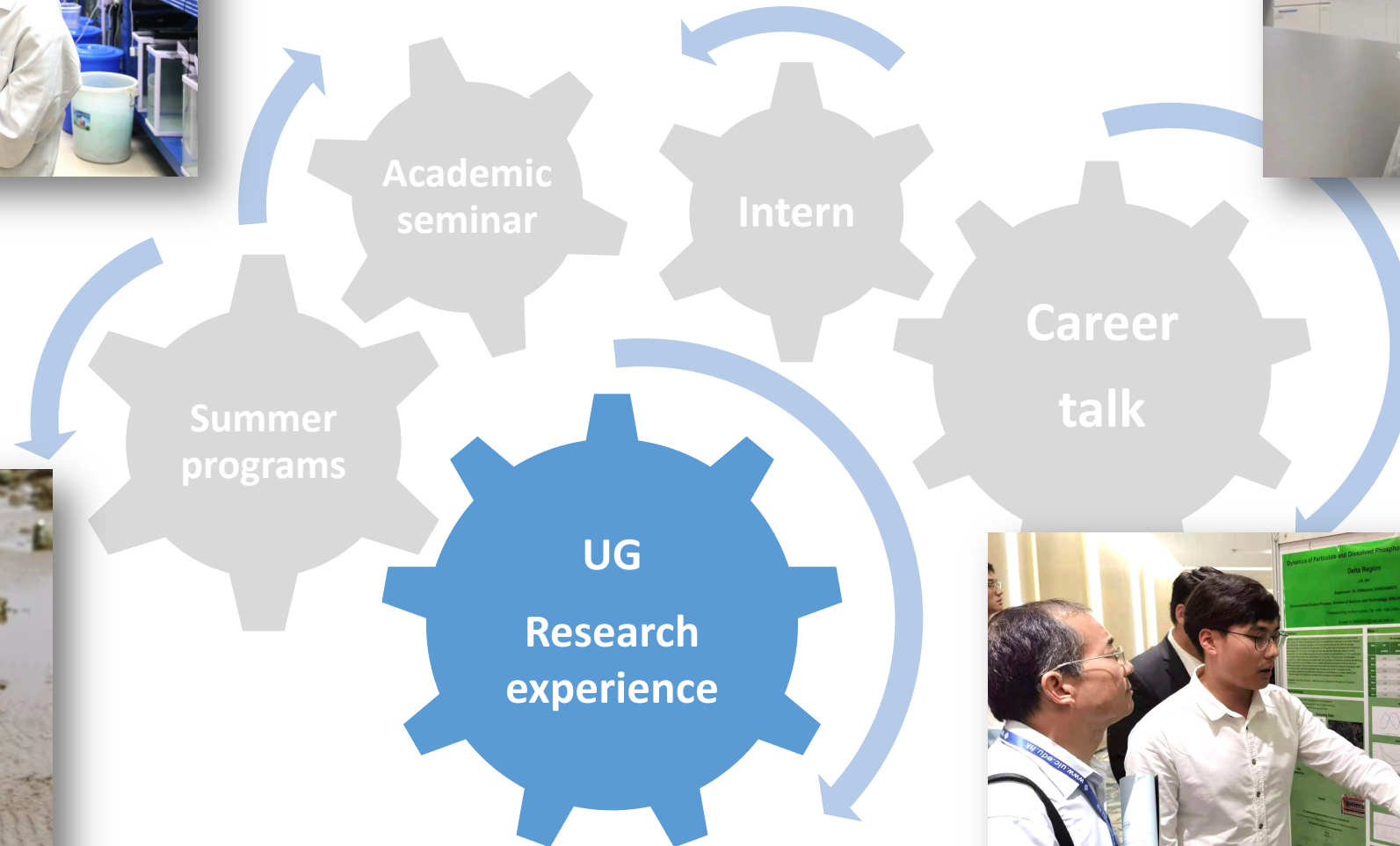
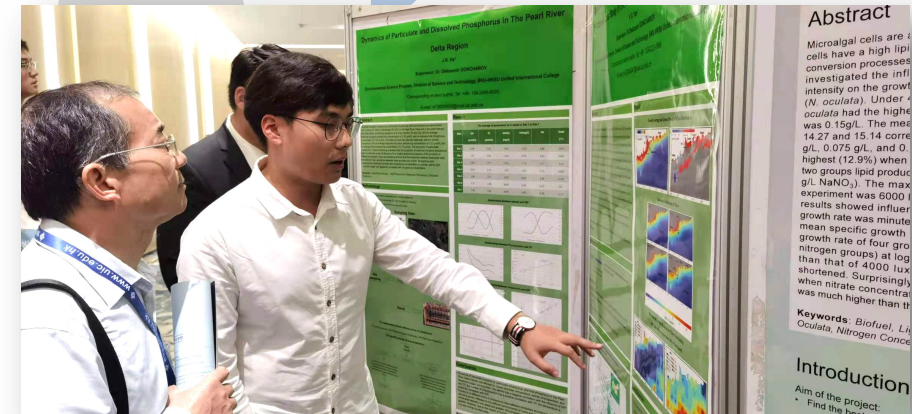
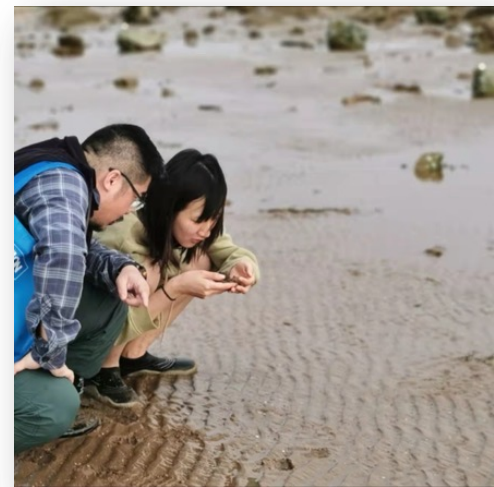
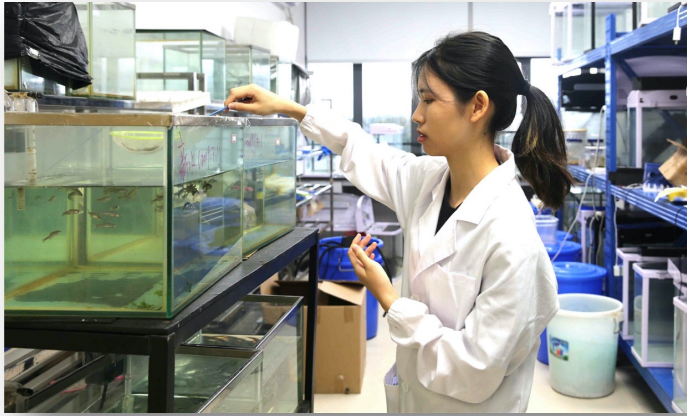
- ✓ Curriculum
- ✓ Faculty and Staff
- ✓ Facilities, Environment and Location
- ✓ **Student supports**



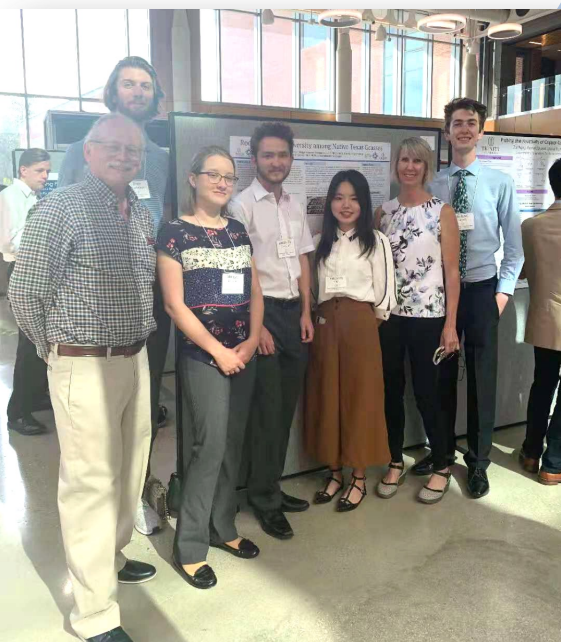
## Various Co- and Extra-curricular Activities





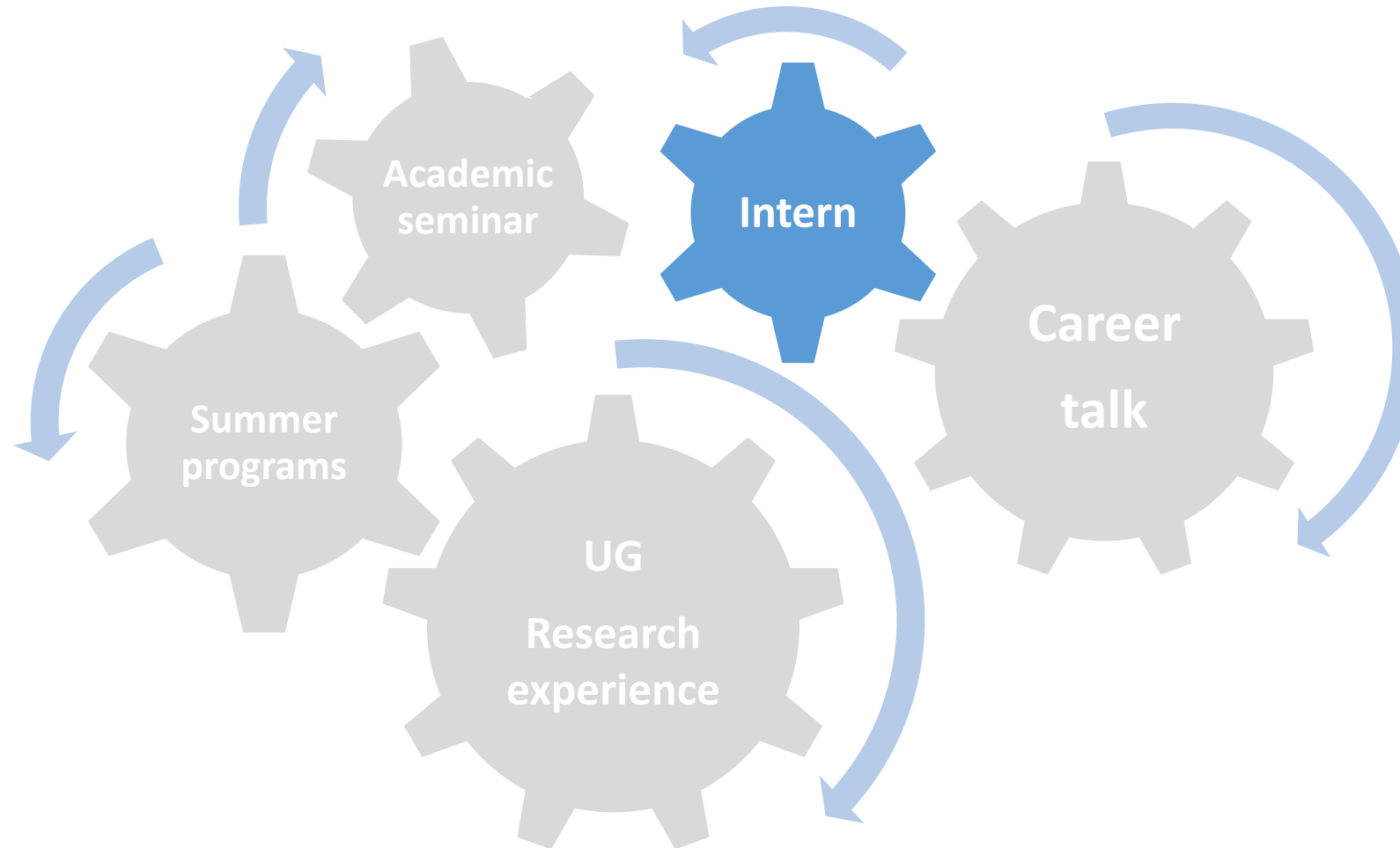








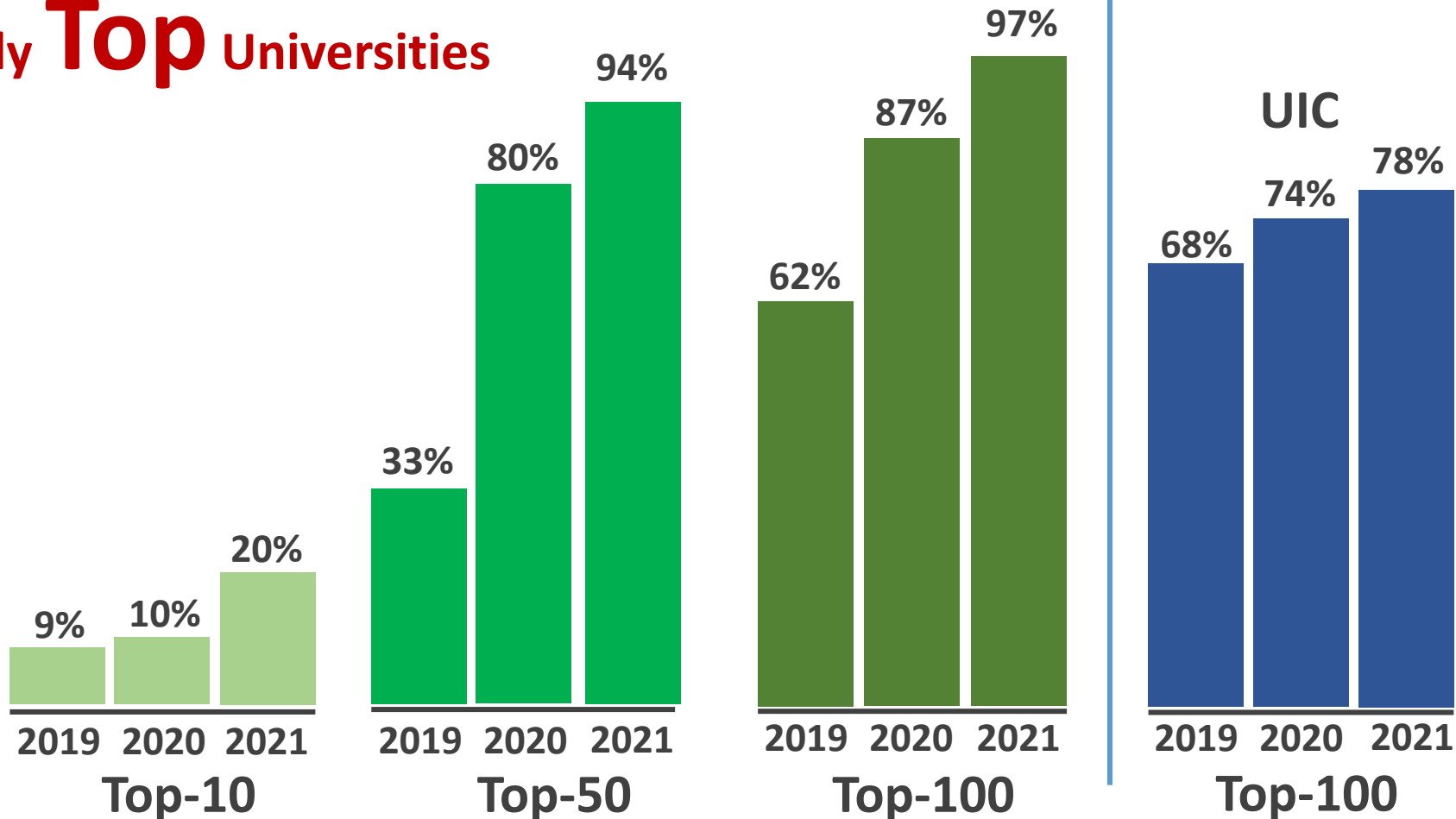
## Intern connections @ Zhuhai, Guangzhou, Shenzhen



# Env. Sci. Graduates' Performance

Pursuing Postgraduate Programs

at Globally **Top** Universities





Environmental  
Management

Biotechnology

Environmental &  
Public Health

Environmental  
Engineering

Wide-range of further studies and career development

Green Business  
& Investment

Bio-resource  
Conservation

Nature Conservation &  
Environmental Education

Environmental  
Technology

Chemical Analysis  
& Laboratories





# The 1<sup>st</sup> Environmental Science Alumni Research Forum 第一届环境科学专业校友研究论坛



Since 2009,  
the first batch of graduates.....

75%

alumni obtained Master's degrees

28 (6%)

alumni pursuing PhD degrees

5 alumni

are faculty members in universities



# Career

Graduates can develop profession career in the following (but not limited to) directions:

Environmental Engineering  
Environmental Science  
Green Technology  
Green Energy  
Green Building  
Pollution Control

Environmental Management  
Environmental Health and Safety (EHS)  
Public Environment and Health  
Occupational Health  
Sustainable Development  
Corporate Environmental Governance

Analytic Chemistry

Biodiversity Conservation  
Sustainable Resources Management  
Climate Change  
Biotechnology

Environmental Economics  
Urban Planning  
Geographic Information System

# Environmental Science



our **Present** and **Future**



Visit our webpage at [https://dst.uic.edu.cn/envs\\_en/](https://dst.uic.edu.cn/envs_en/)

**Join us! Be one with nature!**

