

ENVS 4984 Research Project II - FYP Topics (Fall 2016/17)

Notes: Unless specified, each faculty member will take **one student** for each of the topic.

Prof. Hongbin LIU

1. Continuous monitoring of phytoplankton community composition in Port Shelter

Prof. Jimmy FUNG

1. Mathematical modeling of urban air pollution
2. Numerical weather forecasting

Prof. Simon CHAN

1. Quantification of monoaromatic nitro-compounds in air samples
2. HPLC analysis of 1-nitronaphthalene and 1-nitropyrene in particulate matters

Prof. Peiyuan QIAN

1. Development of secondary metabolite fingerprinting database of marine bacteria using UPLC-MS and MS-MS

Prof. Jason YANG (2 students)

1. 'Noise pollution in HK'

Prof. Jianzhen YU

1. Analysis of levoglucosan and other sugar compounds in atmospheric particles using ion chromatograph-electrochemical detection
2. Determination of humic-like substances in atmospheric particles using Evaporation Light Scattering Detection

Prof. Stanley LAU (1 – 2 students each topic)

1. Understanding and modulating the nitrogen cycle in a fish tank
2. Understanding and modulating the phosphorus cycle in a fish tank

Prof. Wenxiong WANG (2 – 3 students each topic)

1. Metal pollution in Pearl River Estuary
2. The project will determine the pollution of metals in Pearl River Estuary, and will involve field trip to the Pearl River Estuary

Prof. Qinglu ZENG

1. Isolation and sequencing of cyanobacterial viruses from the South China
2. Evolution of cyanobacterial viruses in the lab

Prof. Karen CHAN (1 – 2 students)

1. Effect of anthropogenic noises on marine invertebrate larvae
2. Effect of micro-polystyrene on marine invertebrates

Prof Joseph WONG

1. Screening for mutants in dinoflagellates