MSc. in Applied Geographic Information Systems
Department of Geography

NUS | Department of Geography
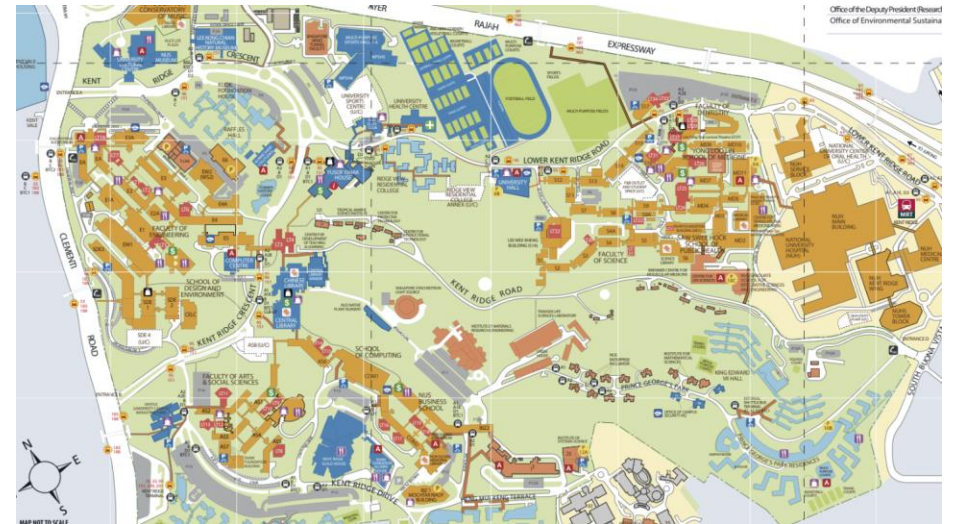National University of Singapore

GIS Unit, Department of Geography, NUS

NUS Department of Geography

Geography Department belongs to the <u>Faculty of Arts and Social Sciences.</u>

- The department has **3 main research thrusts**:
  - **PEAS**
    Politics, **E**conomies, **a**nd **S**pace
  - **SCG**
    Social and **C**ultural **G**eographies
  - **TEC**
    Tropical **E**nvironmental **C**hanges
- GIS or geospatial information technologies, including spatial data science, cuts across all three thrusts.

https://map.nus.edu.sg/

Address: AS2, #03-01,
1 Arts Link, Kent Ridge,
Singapore 117568
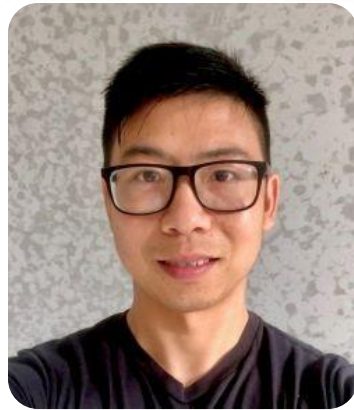
GIS Faculty Members

A/P FENG Chen-Chieh

A/P WANG Yi-Chen

Dr. Luo Wei

Dr. Muhamad Nawaz

Dr. Tang Hao

Dr. Yan Yingwei

Dr. Benny Chin

More educational pathways to develop geoscience talent pipeline and deepen capabilities

NUS Deputy President (Academic Affairs) and Provost, Professor Aaron Thean (left) and Chief Executive of Singapore Land Authority, Mr Colin Low (right) at a MOU signing in September 2023. Witnessing the signing was Dr Mohamad Maliki Bin Osman (centre), Minister, Prime Minister's Office, Second Minister for Education and Second Minister for Foreign Affairs.

- NUS will soon be rolling out more learning and training opportunities in geospatial science following a partnership inked with the Singapore Land Authority (SLA).

- This partnership, announced with the signing of a memorandum of understanding (MOU) between NUS and SLA at the *Singapore Geospatial Festival 2023*, aims to support and encourage the adoption of geospatial data, services and technologies as part of Singapore's move towards a Smart Nation.

Master of Science in Applied GIS

- Learn the latest location intelligence technologies theories and applications

- Solve real world problems through the lens of geography

- Flexible learning: Full-time (1 year) or part-time (2 years) options

MSc in Applied GIS by Coursework Programme:
https://fass.nus.edu.sg/geog/msc-in-applied-gis/

Students - Cohort & Alumni

Cohort & Alumni

40 - 50

Candidates Per Intake

0-25 years of working experience
(Average 4 years)

From fresh graduates to experienced working professionals

Diverse background

Environmental scientists
Research Engineer
Software Engineer
Education officer
Managers
Research officers/Assistants
Data analysts etc.

Where our alumni are today

In a variety of government, international and private sectors, including but not limited to:

MSc in Applied GIS

NUS | Department of Geography
National University of Singapore

Gain broader body of knowledge in state-of-the-art applications of GIS through hands on, thematic sessions on:
- Network analysis
- Public health
- Urban heat island

GE5226 GIS Applications

Learn programming skills essential for building and implementing customized geoprocessing functions and mapping applications such as:

- Basic concepts on Python programming
- Geoprocessing in ArcGIS
- Spatial analysis with programming scripts

GE5219 Spatial Programming

NUS | **Department of Geography**
National University of Singapore

Learn spatial data processing skills and be able to apply these skills in the field of both human and physical geography. Topics examined include:
- Spatial data mining
- Spatial uncertainty
- Geospatial simulation
- Spatial statistics, etc.

GE6211 Spatial Data Science

Equip yourself with the latest Internet GIS technologies and spatial theories for mapping and comprehending activities in virtual space, real space, and the intersections of the two spaces. Topics include:

- Digital Earths
- Volunteered Geographic Information (VGI) and Citizen Science
- Geoweb Application Development on the Browser
- Streaming, real time Data
- Internet GIS and mobile devices Geo- and data visualization

GE5227 Internet GIS
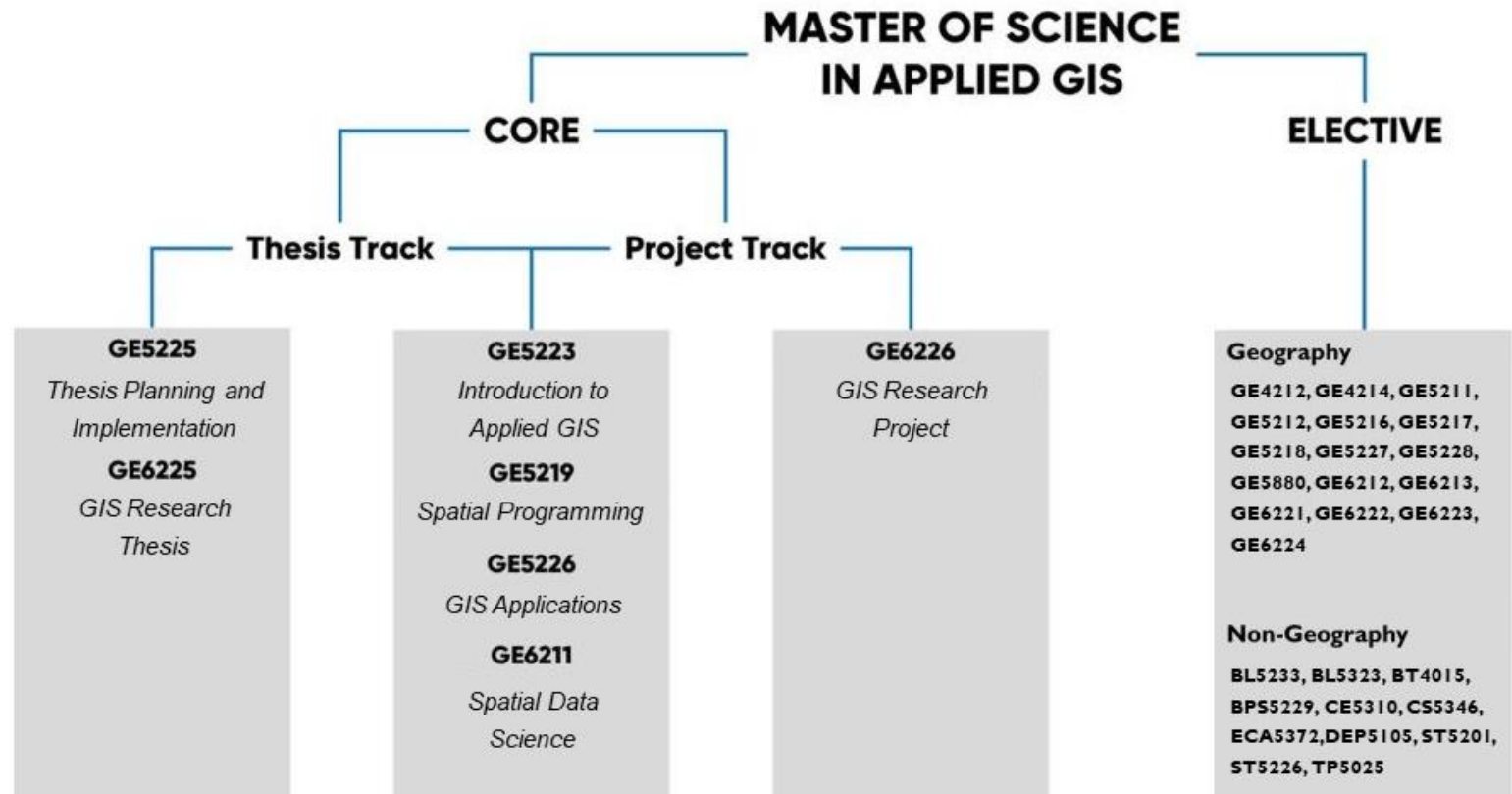
Programme Structure

Students are required to complete 40 units (or 10 courses).

Core courses (4 courses):

- Intro to Applied GIS
- Spatial Programming
- GIS Applications
- Spatial Data Science

Students need to choose between:

- Thesis Track (eq. 4 courses)
- Project Track (eq. 2 courses)

MASTER OF SCIENCE IN APPLIED GIS

CORE

Thesis Track — **Project Track** —

ELECTIVE

GE5225
Thesis Planning and Implementation
GE6225
GIS Research Thesis

GE5223
Introduction to Applied GIS
GE5219
Spatial Programming
GE5226
GIS Applications
GE6211
Spatial Data Science

GE6226
GIS Research Project

Geography
GE4212, GE4214, GE5211, GE5212, GE5216, GE5217, GE5218, GE5227, GE5228, GE5880, GE6212, GE6213, GE6221, GE6222, GE6223, GE6224

Non-Geography
BL5233, BL5323, BT4015, BPS5229, CE5310, CS5346, ECA5372, DEP5105, ST5201, ST5226, TP5025

Thesis & Project Tracks

- A student-led independent work conducted under the supervision of an advisor.

- **Thesis Track**
  - 3-course equivalent
  - & 1 course for Thesis planning
  - Academic & Research intensive

- **Project Track**
  - 2-course equivalent
  - Applied & Practical
  - Modeled after a consultancy project for working adults
  - Allow students to take 2 more courses

Admission

The online application for the **August 2025 admission** opens from **1st November 2024** to **31st January 2025**.

Application: https://gradapp.nus.edu.sg/portal/app_manage

Tuition Fee

The tuition fee for AY2025-26 intake is **S$50,085** (GST inclusive) for all students irrespective of nationality.

International Students

All international students must hold a valid Student's Pass (SP) issued by the Singapore Immigration & Checkpoints Authority (ICA) for their studies at NUS. For full-time students only.
https://osa.nus.edu.sg/services-support/administrative-services/student-pass/

PhD and Master by Research

PhD and Master by Research is a programme offered by the Department of Geography, NUS. Master by Research is a 2-years programme.
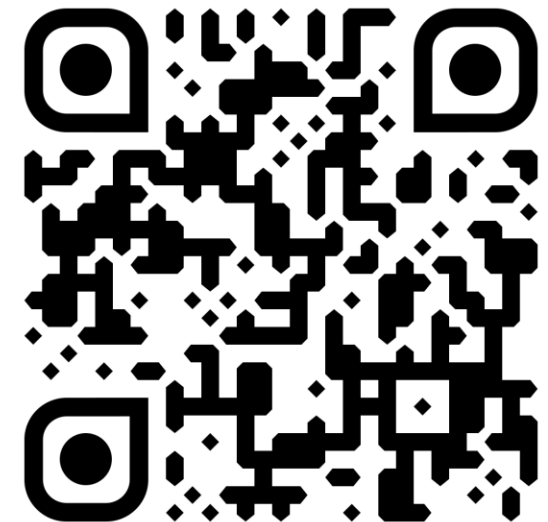
https://fass.nus.edu.sg/geog/graduate-introduction/

Geography recruits graduate research students through **two intakes per year:**
- August intake: November 1st of the previous year
- January intake: May 15th of the previous year

More info about the applications:

https://fass.nus.edu.sg/geog/application/

About Programme

For more details:

- Courses, programme structure
- Admission requirements
- Fees
- Graduation requirements
- Application progress

Application

Thank You
Terima Kasih

NUS Department of Geography
National University of Singapore

NUS