# GUIDEBOOK FOR CIMPA SUMMER SCHOOL

# **Applied Number Theory**

Ho Chi Minh City University of Education June 3 - 14, 2024

### 1. Brief information about the school

- Title: Applied Number Theory
- Place: Ho Chi Minh City University of Education (HCMUE), 280 An Duong Vuong Street, Ward 4, District 5, Ho Chi Minh City, Vietnam.
- Dates: June 03 14, 2024
- Website: <a href="http://www.rnta.eu/HCMC2024/">http://www.rnta.eu/HCMC2024/</a>
- Hotlines: 0376464018 (Mr. Canh), 0902999048 (MR. Khanh).
- Email: <a href="mailto:cimpaschool2024@gmail.com">cimpaschool2024@gmail.com</a>

### **Route from Tan Son Nhat Airport to Dong Kinh Hotel**

(106 - 108 Tran Tuan Khai, Ward 5, District 5)

You can travel from Tan Son Nhat Airport to Dong Kinh Hotel or vice versa by Traditional Taxis or Grab Taxis.

#### a. Traditional Taxis:

+ At the Arrival Hall, there are lots of Traditional Taxis waiting for passengers. You can ask a driver there, or call one of these numbers to ask for a traditional taxi car:

Taxi VinaSun ( +84 28 3827 2727)

Taxi Mai Linh (+84 878 493 838)

+ The cost is about 200,000 VNĐ - 300,000 VNĐ (8 - 12 USD).

#### b. Grab Taxis

This is the most popular one. You can easily find a taxi or book a motorbike taxi by using Grab or Xanh SM, which are mobile apps for ride-hailing.

- + Create an account and choose the kind of transportation (motorbike/car).
- + Input your current location: "Tan Son Nhat INTERNATIONAL Airport".
- + Input "Dong Kinh Hotel or 106 108 Tran Tuan Khai, Ward 5, District 5, HCM City" as your destination.
- + Then, go to the third floor of the Airport and wait for the driver to come. (Grab taxi is not allow to stay at the Entrance Hall.
- + The journey costs about  $50,000\sim75,000$  VND (2~3 USD) (by motorbike) and  $130,000\sim150,000$  VND (5~6 USD) (by taxi) (not in rush hour).

### 2. Courses and Schedule

#### a. Courses

Course 1: Elliptic Curves, Lecturers: Peter Stevenhagen and Valerio Talamanca

Course 2: Algorithmic Number Theory, Lecturers: Laura Geatti and Rene Schoof

**Course 3:** Algebraic Coding Theory, Lectures: Michel Waldschmidt and Frederique Elise Oggier.

**Course 4:** Isogeny-based Cryptography, Lecturers: Benjamin Wesolowski and Mingjie Chen.

# b. Schedule

#### First week

Timeline	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 - 10:30	Opening Ceremony Lecture Hall A509	Number Theory Lecture Hall A313	Elliptic Curves Lecture Hall A313	Number Theory Lecture Hall A313	Elliptic Curves Lecture Hall A313
10:30 - 11:00	Coffee break				
11:00 - 13:00	Number Theory Lecture Hall A509	Elliptic Curves Lecture Hall A313	Number Theory Lecture Hall A313	Elliptic Curves Lecture Hall A313	Coding Theory Lecture Hall A313
13:00 - 15:00	Lunch break				
15:00 - 17:00	Elliptic Curves Lecture Hall A313	Number Theory Lecture Hall A313	Elliptic Curves Lecture Hall A313	Number Theory Lecture Hall A313	Elliptic Curves Lecture Hall A313

### **Second week**

Timeline	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 - 10:30	Coding Theory Lecture Hall A313	Cryptograph y Hall A313	Coding Theory Hall A313	Cryptograp hy Hall A313	Coding Theory Hall A313
10:30 - 11:00	Coffee break				
11:00 - 13:00	Cryptograph y Lecture Hall A313	Number Theory Lecture Hall A313	Cryptograp hy Lecture Hall A313	Coding Theory Lecture Hall A313	Cryptograp hy Lecture Hall A313
13:00 - 15:00	Lunch break				
15:00 - 17:00	Number Theory Lecture Hall A313	Cryptograph  y Lecture Hall A313	Coding Theory Lecture Hall A313	Cryptograp hy Lecture Hall A313	Closing ceremony Lecture Hall A509

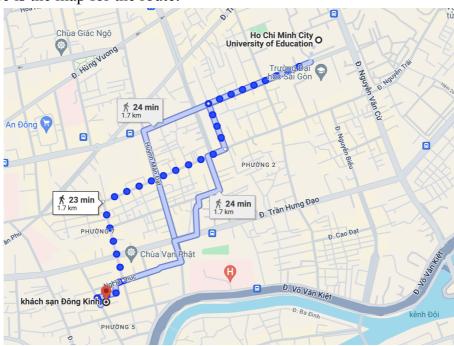
#### **Notes:**

- Praying rooms are A311 and A312, one for males and the other for females.
- All lecture halls/rooms are located in the same building A, and we can get there by elevators or stairs. Lecture hall A509 is on the 5th floor, while the others are on the 3rd floor.

## Route from Dong Kinh Hotel to Ho Chi Minh City University of Education

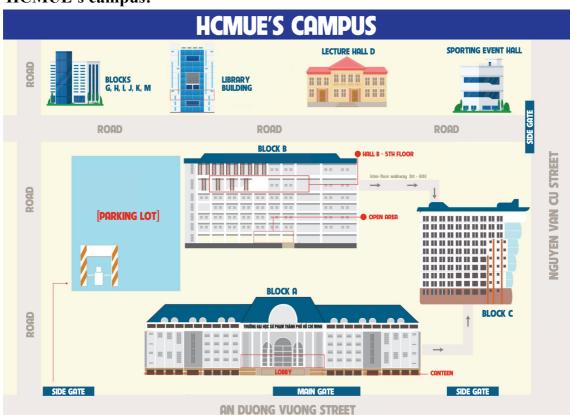
To travel from Dong Kinh Hotel to Ho Chi Minh City University of Education, you have several transportation options. Here's some suggested routes:

- a) Walking: It takes about 25 30 minutes from the hotel to university.
- + Go to the Northwest along Tran Tuan Khai Street for 30 meters.
- + Turn right to Nghia Thuc Street for 120 meters and then turn left to Bui Huu Nghia Street for 350 meters.
- + Turn right to Nguyen Trai Street 550 meters and then turn left to An Duong Vuong Street for 190 meters.
- + Once again turn right to An Duong Vuong Street and you will reach HCMUE after walking for about 550 meters.
- + Here is the map for the route:



- **b)** Motorbike taxi/ Taxi: It takes around 10 20 minutes.
- Taxi VinaSun ( +84 28 3827 2727), you can ask the reception at the hotel to book it for you, pay by cash.
- **Grab Taxi- Grab Taxi** (<a href="https://www.grab.com/vn/en/transport/taxi/">https://www.grab.com/vn/en/transport/taxi/</a>) is the most popular one. You can easily find a taxi or book a motorbike taxi by using Grab or Gojek (<a href="https://www.gojek.com/vn/en">https://www.gojek.com/vn/en</a>) (**mobile apps for ride-hailing**).

- + Create an account and choose the kind of transportation (motorbike/car).
- + Input your current location: "Dong Kinh Hotel or 106 108 Tran Tuan Khai, Ward 5, District 5, HCM City".
- + Input "Ho Chi Minh City University of Education or 280 An Duong Vuong, Ward 4, District 5, HCM City" as your destination.
- + The journey costs about 15,000~20,000 VND (0.6~0.8 USD) (by motorbike) and 30,000~40,000 VND (1.18~1.58 USD) (by taxi) (not in rush hour).
- c) **Bus**: It takes more than 30 minutes for each bus suggested below:
  - + Bus number 01 runs from 1149 Tran Hung Dao (260m apart from the hotel) to 651 Tran Hung Dao. Then, you can walk 750m to reach the university.
  - + Bus number 06 runs from An Dong Market (850m apart from the hotel) to the University of Science. Then, you can walk 210m to reach the university.
  - + It costs 7,000 VND (0.28 USD) for each way, and you can **pay directly with** cash to the cashier (in the bus).



### 3. HCMUE's campus:

You can follow this map or friendly ask the local students on campus for directions.

#### 4. Meals:

- All 10 lunches for 10 days of the school (not on the weekend) will be provided for all participants.
- Enjoy traditional Vietnamese dishes and other fast food at 2 canteens or food stalls in front of the university. Please remind that **canteen accepts pay in cash only**.
- There are a lot of convenience stores on An Duong Vuong Street such as Ministop, Circle K, GS25, 7 Eleven...
- Approximately 2 kilometers in radius, we have some food vendors and restaurants suggested to you, **most of them only accept cash**.

Name	Address	Cost	Notes
Hủ tiếu khô (Kind of noodle)	in front of the south western side gate	32,000~40,000 VND (1.26~1.58 USD)	Eating on the sidewalk.
Bánh canh cua Bà Ba (Madam Ba's crab noodle)	84/6 Nguyen Bieu street, Dist. 5	45,000~100,000 VND (1.78~3.95 USD)	
Mì Ý TAISON (Taison spaghetti)	840 Vo Van Kiet street, Dist. 5	29,000~75,000 VND (1.14~2.96 USD)	
Quán chay Mãn Tự (Mãn Tự Vegeterian restaurant)	201 Nguyen Thi Minh Khai, Dist. 1	optional	Vegetarian.
Mì vịt tiềm - sủi cảo Hào Ký (Hao Ky's Duck noodle soup & Jiaozi)	49B Tran Hung Dao street, Dist. 5	42,000~68,000 VND (1.66~2.68 USD)	
Sasin Korean noodle	292A An Duong Vuong street, Dist. 5	49,000~64,000 VND (1.93~2.53 USD)	
Texas Chicken	217 Nguyen Van Cu street, Dist. 5	30,000~300,000 VND (1.18~11.8 USD)	Fastfood.
Tường Viên vegetarian	58 Huynh Man Dat street, Dist. 5	20,000~55,000 VND (0.79~2.17 USD)	Vegetarian.
Nhà hàng chay Giác Ngộ (Giác Ngộ Vegetarian restaurant)	213A Hung Vuong street, Dist. 5	20,000~85,000 VND (0.79~3.35 USD)	Vegetarian.

# 5. Places to visit:

To explore the vibrant city of Ho Chi Minh, here are some remarkable attractions and suggested transportation option from Dong Kinh hotel:

Place	Address	Price	Notes
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Ben Thanh Market	Ward Ben Thanh, Dist. 1	Free entrance	Try to bargain before buying something.
War Remnants Museum	28 Vo Van Tan, Ward Vo Thi Sau, Dist. 3	40,000 VND (2 USD), more 80,000 VND (4 USD) for the audio tour	Recommended to visit in the morning.
Notre-Dame Cathedral Basilica of Saigon	01 Cong xa Paris, Ward Ben Nghe, Dist. 1	Free entrance	Just visit the outside area.
Saigon Opera House	07 Cong truong Lam Son, Ward Ben Nghe, Dist. 1	~ 700,000 VND/show (27.5 USD)	
Nguyen Hue Walking Street	Nguyen Hue Street	Free entrance	Beware of personal and valuable belongings.
Independence Palace	135 Nam Ky Khoi Nghia, Ward Ben Nghe, Dist. 1	65,000 VND (2.5 USD) (student) More 90,000 VND (3.5 USD) for the audio tour	

## 6. Security:

- Keep personal documents secure: Always carry your passport or identification and necessary documents. Avoid leaving them in easily accessible places.
- Be cautious with personal belongings: Keep your personal belongings (phone, wallet, camera) in your pockets or secure them in a safe place. Avoid leaving them unattended or being distracted while using them in public places, especially in crowded areas like markets, outside or on the bus.
- Use safe transportation: If you're moving around the city by motorbike, taxi, or bus, choose reputable taxi companies or credible services.
- Exercise vigilance: While the majority of local residents in Ho Chi Minh City are friendly and helpful, it's still important to exercise caution and not to trust strangers excessively.