2017 Statistics Enrichment Camp

Date: 2 June 2017

Time: 9.30am – 4.15pm

Venue: NUS
Faculty of Science
Lecture Theatre 31

This camp is specially tailored for all Secondary School and Junior College students.
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<th>Time</th>
<th>Activity</th>
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<td>9.30am</td>
<td>Registration</td>
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| 10.00am  | **Brief Introduction to Department of Statistics and Applied Probability**  
            *Associate Professor Lim Tiong Wee*  
            *Deputy Head, Department of Statistics and Applied Probability*  |
| 10.15am  | **Lecture 1. What does stable marriage problem have to do with kidney transplant allocation?**  
            *Associate Professor Choi Kwok Pui*  |
| 11.45am  | Tea Provided                                                             |
| 12.15pm  | **Lecture 2. The Scientific Method**  
            *Associate Professor Adrian Roellin*  |
| 1.45pm   | Lunch Provided                                                           |
| 2.45pm   | **Lecture 3. Decision-making in Sports**  
            *Dr Vik Gopal*  |
| 4.15pm   | End of Program                                                           |
Abstracts

Lecture 1. What does stable marriage problem have to do with kidney transplant allocation?

Associate Professor Choi Kwok Pui

Gale and Shapley in 1962 described and solved the problem of matchmaking n men and n women into n “stable” pairs of husband and wife (meaning of stable pairs will be made precise in the talk). In this talk, I will introduce a formulation of the stable marriage problem and its constructive solution. I will end the talk with various applications of this stable marriage problem. One such application is to the kidney transplant allocation problem, for which Roth and Shapley were awarded Nobel prize in Economics in 2012.

Lecture 2. The Scientific Method

Associate Professor Adrian Roellin

The success of modern science and technology is a result of what we call the “Scientific Method”. It guides researchers in evaluating and formulating scientific theories by means of observations and experiments, and statistics plays a crucial part in this process. In this talk, we’ll explain and explore the basic ideas behind this all.

Lecture 3. Decision-making in Sports

Dr Vik Gopal

In this talk, we will discuss the impact of statistics on basketball, and in particular the NBA. We will also demonstrate how we can use an Arduino to collect sports tracking data. In this workshop, we shall touch on the topics of data collection, summarisation, etc. but the underlying message is on using data to make decisions.
Directions

1. Alight at Kent Ridge MRT Station.
2. Transfer to SBS Bus Service 95 or internal shuttle buses A1, A1E or D2.
3. Alight at the bus stop in front of the Lim Seng Tjoe Lecture Theatre 27 in NUS.
4. Follow the map and walk to Lecture Theatre 31 (Block S16, Level 3). There is a security post at the lobby of Block S16.

For an interactive map of NUS, you may visit http://www.nus.edu.sg/campusmap/.
Registration Form

1. The registration fee per person (student or teacher) is S$30 (GST inclusive). This fee will cover morning tea, lunch and the lecture note handouts.

2. Payment can be done through IFFAS or by cheque.
   
   IFFAS:
   Please credit the payment to:
   National University of Singapore
   DBS Account No: 7171-032-0320003133

   Kindly quote the event name when processing the payment.

   If you need an official letter to process the payment, please send your request to Melissa at melissa.thong@nus.edu.sg (Tel: 6516 8050).

   Cheque:
   Please write a cheque payable to National University of Singapore.

   Official receipts will be issued on the day of the event.

3. Cancellations are non refundable but participants can be substituted.

4. Please send the completed registration form together with your payment by Friday, 12 May 2017, to:

   Ms Melissa Thong
   Department of Statistics & Applied Probability
   Block S16, Level 7, 6 Science Drive 2
   Faculty of Science
   National University of Singapore
   Singapore 117546

Individual Registration

Name: __________________________________________________________
Institution: ______________________________________________________
Email: __________________________________________________________
Phone: __________________________________________________________
Bank/Cheque number: ____________________________________________
Dietary Preference: Vegetarian / Non-vegetarian* (Caterer will be halal certified.)
**Block Registration**

Institution: __________________________________________________

No. of students: ______________________________________________

Name of teacher-in-charge: ____________________________________

Email: ______________________________________________________

Phone: ______________________________________________________

Bank/Cheque number: _________________________________________

For Block Registration, please complete and return this page together with the payment. If the headcount exceeds 20, please enter the particulars on a new page.

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* Caterer will be halal certified.