Yale-NUS College Student Associate Program

Currently Available Student Associate Positions

*Updated as of 30/03/2017*

- Student Associate – Astronomy (Remote Telescope Manager)
- Student Associate – Chemistry *NEW*
- Student Associate – Computational Biology
- Student Associate – CSI *NEW*
- Student Associate – Ecological Modelling
- Student Associate – Environmental Leadership & Training Initiative (ELTI)
- Student Associate – Infrastructure *NEW*
- Student Associate – Philosophy Major *NEW*
- Student Associate – Psychology Research Surveyor

Please see below for detailed position descriptions.
Position Title:  Student Associate – Astronomy (Remote Telescope Manager)

Number of Hours per Week:  Up to 10-16

Duration of Appointment:  Academic Year 2016-2017

Number of available positions:  1-2

Supervisor:  Prof. Bryan Penprase

Responsibilities:
The remote telescope manager will be responsible for working closely with Dr. Penprase to develop new astronomy research projects with the Las Campanas Remote telescope in Chile, and the Skynet telescopes in Chile and Australia. Duties include developing telescope observing scripts, uploading data, performing photometric calibration and working to develop a website that explains the operation of the telescope to other students. The student will also work closely with Dr. Penprase to develop guides that enable other students to perform light curve analysis of variable stars, and of transiting extrasolar planets.

By accessing two remotely operable telescope systems, this position will enable Yale-NUS to gain valuable new research data and to develop a powerful capability in astronomy education.

Requirements:  Familiarity with astronomical concepts and terminology, ability to learn quickly and work with packages such as Wordpress, AstroImageJ, and preferably Python. Some image processing and plotting with astronomy packages, and/or R would also be required.

How to Apply:  Please email cipe@yale-nus.edu.sg 1-2 paragraphs explaining your interest and any relevant experience you may have.

Application Closing Date:  Open until filled
Position Title: Student Research Assistant - Chemistry

Number of Hours per Week: Up to 40 hours per week (flexible)

Duration of Appointment: Summer 2017

Supervisor: Prof. Steven Bernasek, Dr. Susanna Liljegren Bergman

Responsibilities: Work in research laboratory for studying surface structure and reactivity. Carry out research in collaboration with postdoctoral associate, using scanning probe microscopy to learn about mechanisms of self-assembly, two-dimensional crystal growth, and structure and reactivity of molecules on surfaces.

Requirements: The research assistant should have an interest in the physical sciences, with some high school and junior college coursework in chemistry, physics, and math. An interest in how things work, and some computer programming and electronics experience would be useful.

Additional Information: The research assistant will learn about the atomic and molecular structure of organic monolayers on surfaces, and their reactivity. They will learn about image analysis, data acquisition and processing, experimental design, and experimental methods in physical chemistry.

How to Apply: Please submit a one-page expression of interest and description of relevant qualifications for this position to cipe@yale-nus.edu.sg.

Application Closing Date: 15 April 2017
**Yale-NUS College Student Associate Program**

**Position Title:** Student Associate – Computational Biology

**Number of Hours per Week:** Up to 10

**Duration of Appointment:** Full academic year

**Supervisor:** Prof. Maurice Cheung

**Responsibilities:**
1. Construction of computational models of plant metabolism  
   - Mining of primary literature (research articles) to add information to plant metabolic models
2. Model testing and curation (quality control)  
   - Run tests, report errors and attempt to fix errors in metabolic models
3. Model simulations  
   - Use existing software to perform model simulations of plant metabolism  
   - Organise model simulation results (predictions of metabolic fluxes) in tables and plot graphs

**Requirements:** Responsible and willing to learn new knowledge and skills.

**Additional Information:** This position will enable students to acquire a number of transferable skills such as literature searching and data organisation. For students who are interested in programming, there are opportunities to use Python for various tasks.

**How to Apply:** Please email cipe@yale-nus.edu.sg 1-2 paragraphs explaining your interest and any relevant experience you may have.

**Application Closing Date:** Open until filled
**Yale-NUS College Student Associate Program**

**Position Title:** Student Associate – Comparative Social Inquiry

**Number of Hours per Week:** 30 hours per week during Summer 2017; 5 hours per week during Semester 1 of AY2017-2018

**Duration of Appointment:** 2 months over the summer (timing flexible); All of Semester 1, AY2017-2018

**Supervisor:** Anju Mary Paul

**Background and Description:**
Over the course of the last four years, the CSI teaching team has developed a wide range of in-class activities, lecture notes, and other teaching material, that have enhanced the pedagogical effectiveness of the course and made it one of the most innovative and interactive courses within the common curriculum. However, to date, there is no central repository of this material to aid future teaching teams as they take over the delivery of the course. Instead, this material resides in individual faculty members’ personal hard drives and memories, and is shared between individual faculty members largely through word-of-mouth and email exchanges. As the faculty body evolves, the college will eventually reach the point where there will be no one in the CSI teaching team who was part of the original development team in New Haven or part of the team that delivered the first instance of CSI. In and of itself, this is neither good nor bad as it is important to keep innovating and fresh blood can mean fresh ideas. However, the collective loss of CSI teaching material does mean that more energy is spent reinventing the wheel than is actually necessary. A teaching innovation grant has been awarded to support the central collection and curation of all teaching material developed for the last four years of CSI, to be accessible to all faculty within Yale-NUS.

The Student Associate – CSI will work with the AY2017-2018 faculty facilitator of CSI to collect and curate this teaching material for subsequent uploading into an online institutional repository.

**Responsibilities:**
1. Reaching out to and communicating with all present and past members of the CSI teaching team to identify and collate teaching material worth preserving for future iterations of the course. Teaching material includes syllabi, lecture slides and notes, in-class exercises, readings, assignment prompts, audio-video material, etc.
2. Collaborating with individual faculty members to edit the teaching material into a presentable and standardised format.
3. Producing a metadata cover sheet for each item of teaching material.
4. Working with faculty supervisor on developing an indexing and tagging system to enable easy retrieval of material.
5. Working with Yale-NUS ERT to upload all teaching material and metadata onto an online repository.

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**Requirements:**

1. Applicants must be either current sophomores or juniors at Yale-NUS College.
2. Applicants must have received an informal grade of A- or higher for CSI.
3. Applicants must have strong interpersonal skills, be meticulous and highly organised, and possess excellent English writing ability.
4. Self-starters who can work independently with minimal guidance preferred.
5. Social science majors preferred, but not required.

**How to Apply:** Submit 1-2 paragraphs of interest and relevant experience, latest unofficial transcript, plus relevant supporting documents to cipe@yale-nus.edu.sg. Applicants must indicate the name of their CSI professor in their application letter.

**Application Closing Date:** April 21, 2017
**Position Title:** Student Associate – Ecological Modelling

**Number of Hours per Week:** Up to 10

**Duration of Appointment:** Full academic year

**Supervisors:** Maurice Cheung, Michiel van Breugel, Michael Gastner

**Responsibilities:** Construct and run agent-based models of forest succession (how trees colonise empty areas) in NetLogo and/or other platforms.

**Requirements:** Willing to learn Ecology and coding in NetLogo.

**How to Apply:** Please email cipe@yale-nus.edu.sg with 1-2 paragraphs on your interest and any relevant experience you may have.

**Application Closing Date:** Open until filled
**Yale-NUS College Student Associate Program**

**Position Title:** Student Research Assistant—Environmental Leadership & Training Initiative (ELTI)

**Number of Hours per Week:** 5-10 hours per week

**Duration of Appointment:** Until end of semester with possibility of extension over the summer.

**Supervisor:** David Neidel

**Responsibilities:** The Student Research Assistant will conduct background research and take the lead in developing an online training module for an online training program on mangrove rehabilitation.

**Requirements:**
- The student would ideally have a background or interest in tropical forest ecology, geomorphology, coastal communities, or other areas relevant to this project.
- The student will need to be self-motivated since the supervisor, who will periodically review the work, does a lot of travel.
- Some degree of fluency in Indonesian or Malay would be helpful, but is not essential.

**How to Apply:** Submit 1-2 paragraphs of interest and relevant experience to cipe@yale-nus.edu.sg. The selection process will include a brief interview.

**Application Closing Date:** Open until filled
Yale-NUS College Student Associate Program

Position Title: Student Associate – Infrastructure

Number of Hours per Week: 8 hours per week

Duration of Appointment: 1 semester

Supervisor: Goh Chee Keong

Responsibilities:
- Develop and assist in rolling out a new environmental sustainability program;
- Assist in overseeing mobile apps (Snap & send) program;
- Conduct energy audit;
- Communicate with staff/ students on the environmental plan / program rollout by the department.

Requirements:
- Understand facilities management.
- Minute taking.
- Poster design and event organisation.

How to Apply: Email cheekeong.goh@yale-nus.edu.sg and Cc cipe@yale-nus.edu.sg, stating your time and availability and we will contact you.

Application Closing Date: 15 Apr 2016
Position Title: Student Associate – Philosophy Major

Number of Hours per Week: 6

Duration of Appointment: 14 weeks (Sem 1, AY 2017/2018)

Supervisor: Simon Duffy

Responsibilities: The Student Associate will facilitate communication between students and faculty about the philosophy major and activities, advertise philosophy activities and opportunities, assist in hosting philosophy visitors, build the philosophy website (ideas, organization and presentation, location of relevant content, etc. - not necessarily the mechanics of website building).

Requirements: Interest in and willingness to communicate and present philosophy events and persons, and generally do the work required to support the major.

How to Apply: Communicate your interest to simon.duffy@yale-nus.edu.sg and Cc cipe@yale-nus.edu.sg.

Application Closing Date: 15 April 2017
Yale-NUS College Student Associate Program

Position Title: Student Associate – Research Surveyor (Psychology)

Number of Hours per Week: 16-19

Duration of Appointment: Semester 2, AY 2016-2017 (January-May) – must be able to commit for the entire duration, including during the exam period

Supervisor: Prof. Jean Liu

Responsibilities: We are looking for student surveyors to assist in data collection of a Psychology research project.

- Estimated Hours per Week: 16-19 hours per week
  - 18:00-21:00 on weekdays (with a minimum of 4 days, Friday is mandatory)
  - 10:00-18:00 on Saturdays
- Payment Rate: $9 per hour

You will be part of a team administering door-to-door surveys to households. Specific responsibilities include:
1. Data collection (administering surveys);
2. Data entry;
3. Ad-hoc study administration;
4. Attendance of regular team meetings

Paid on-the-job training will be provided.

Requirements
- Applicant must be a matriculated Yale-NUS student.
- Applicant must be able to speak fluently in Chinese, Malay, or Tamil. Ability to speak dialects is a bonus, but not essential.
- Applicant must also be conscientious and have good social skills (to converse with a wide spectrum of the Singapore population).
- Relevant research or survey experience is preferred but not necessary.

How to Apply: Please send your application to synergyhota@gmail.com and Cc cipe@yale-nus.edu.sg. You should include your resume and a brief statement of why you’d like to join the team, along with a summary of past experiences that are relevant to the role.

Application Closing Date: Open until filled

Processing Time: 1 – 2 weeks