## Junior Researcher Mentoring Programme 2024 Brief

#### **Objectives**

- Deepen students' understanding of a chosen research topic;
- Nurture students' analytical and research skills;
- Introduce our undergraduate programmes to students and help them make informed university programme choices; and
- Connect them with our staff to have a better understanding of the study life at PolyU.

#### **Eligibility**

- S.4 & S.5 and Grade 10 & Grade 11 / Year 11 & Year 12 students;
- Having a strong interest in the relevant discipline;
- Possessing a good command of both written and spoken English; and
- Demonstrating a strong commitment to fulfilling the tasks assigned.

#### **Duration**

March to August 2024

#### **Programme Fee**

Free of charge

#### **Recognition**

- Certificate of Participation;
- Chance to present at academic conference in Hong Kong or overseas; and
- Favourable consideration to outstanding students for admission to PolyU.

#### **Research Projects**

Please refer to Page 3-4 and Programme webpage (<a href="https://www.polyu.edu.hk/geo/jrmp">https://www.polyu.edu.hk/geo/jrmp</a>)

#### **Notes to Schools**

- Applicants should be nominated by their Principal.
- Principals are requested to fill in and return the recommendation form (Annex 3) for students' online submission **by 31 January 2024**.



#### **Notes to Students**

- Each student can apply for **ONE** research project only.
- Only applications supported by Principals will be considered.
- Shortlisted students will be invited to attend an online selection interview.
- Selected students are required to participate in all of the activities, including the orientation briefing, meetings with the mentor(s), completion of assigned research work, submission of a reflective journal, presentation, and the closing ceremony cum experience sharing session. No participation certificate will be presented to the student who fails to fulfill any one of the requirements.

#### **Other Details**

- Participating students will be covered by a designated group personal accident insurance plan purchased by PolyU.
- EDB's guidelines on adverse weather and outdoor activity arrangements will be strictly adhered to.

#### **Key Dates (Tentative)**

| Date / Period             | Action                                             |  |
|---------------------------|----------------------------------------------------|--|
| 31 January 2024           | Application deadline                               |  |
| Mid to Late February 2024 | Online selection interview                         |  |
| Early March 2024          | Result notification                                |  |
| 23 March 2024 (am)        | Orientation briefing & first mentor-mentee meeting |  |
| March to August 2024      | Research programme                                 |  |
| Late August 2024          | Closing ceremony cum experience sharing session    |  |

#### **Application Procedures**

- 1. To fill in an application form (Annex 2);
- 2. To obtain Principal's recommendation (Annex 3);
- 3. To prepare the supporting documents (scanned copies of school examination reports for the last **TWO** terms, award certificates, etc); and
- 4. Upload all required documents to the online system (<a href="https://www.polyu.edu.hk/pfs2/index.php/557219">https://www.polyu.edu.hk/pfs2/index.php/557219</a>) <a href="https://www.polyu.edu.hk/pfs2/index.php/557219">https://www.polyu.edu.hk/pfs2/index.php/557219</a>)

#### For the Principal's recommendation to be submitted by School directly:

School teacher/ counsellor will receive an email automatically if the student has nominated you as the referee. Please submit the Principal's recommendation to <a href="mailto:local.study@polyu.edu.hk">local.study@polyu.edu.hk</a> <a href="mailto:by-5-February 2024">by 5 February 2024</a>.

#### **Enquiries**

For enquiries, please email us (local.study@polyu.edu.hk) or call us (3400 8103/ 3400 8302).



# Junior Researcher Mentoring Programme 2024 List of Research Projects

| School/ Department                                        | Code        | Research Topic                                                                                                                                                   |
|-----------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Department of Management and Marketing                    | JRMP2024_01 | Dealing with complexity: An investigation from clinical psychology and neuroscience                                                                              |
| Department of Building Environment and Energy Engineering | JRMP2024_02 | Life-cycle analysis of zero-energy buildings                                                                                                                     |
| Department of Land<br>Surveying and Geo-<br>Informatics   | JRMP2024_03 | Augmenting weather prediction using satellite remote sensing data                                                                                                |
| Department of Aeronautical and Aviation Engineering       | JRMP2024_04 | Simulate, build, test and fly a communication CubeSat                                                                                                            |
| Department of Biomedical Engineering                      | JRMP2024_05 | Evaluation of paraspinal muscles using 3D ultrasound                                                                                                             |
| Department of Computing                                   | JRMP2024_06 | Enabling interactive metaverse applications with neural rendering                                                                                                |
| Department of Mechanical Engineering                      | JRMP2024_07 | Design and development of a fuel cell powered toy car                                                                                                            |
| Department of Mechanical<br>Engineering                   | JRMP2024_08 | Development of a self-driving robot for use in an indoor environment                                                                                             |
| Department of Applied<br>Social Sciences                  | JRMP2024_09 | Appraisals of gender nonconformity                                                                                                                               |
| Department of Applied Social Sciences                     | JRMP2024_10 | Newly arrived adolescent immigrants from mainland China to Hong Kong: How they can thrive                                                                        |
| Department of Applied Social Sciences                     | JRMP2024_11 | Parental psychological control and developmental outcomes among Chinese adolescents in Hong Kong                                                                 |
| Department of Rehabilitation Sciences                     | JRMP2024_12 | Sluggish cognitive tempo symptoms in young people                                                                                                                |
| School of Nursing                                         | JRMP2024_13 | An edge AI-based AR system for hand hygiene training in undergraduates of health-related disciplines                                                             |
| School of Nursing                                         | JRMP2024_14 | Collaborative effort to establish best practices of programme articulation and academic advising to senior-year admission students among UGC-funded universities |
| School of Nursing                                         | JRMP2024_15 | Digital preventive healthcare for people with physical disabilities: A research programme                                                                        |



| School of Nursing                                     | JRMP2024_16 | Exploring the help-seeking behaviour and online health information-seeking behaviour of women with domestic violence experiences in Hong Kong                         |
|-------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| School of Nursing                                     | JRMP2024_17 | Mental health and resilience in young people                                                                                                                          |
| Department of English and<br>Communication            | JRMP2024_18 | 'If it's natural, it must be good': An exploration of naturalness in Hong Kong and online in a global context                                                         |
| Department of English and Communication               | JRMP2024_19 | Teachers' vulnerability in the era of self-branding on social media: Insights from Hong Kong                                                                          |
| Department of English and Communication               | JRMP2024_20 | Translating research into practice: Communicating about cancer with migrant workers in Hong Kong                                                                      |
| Department of Applied Biology and Chemical Technology | JRMP2024_21 | Assessing microbial contamination in food products and associated packaging                                                                                           |
| Department of Applied Biology and Chemical Technology | JRMP2024_22 | Electrocatalytic hydrogen production: The design of anodic catalysts and reactions                                                                                    |
| Department of Applied Mathematics                     | JRMP2024_23 | Modelling of the co-circulation of COVID-19 and influenza and its impact on public health                                                                             |
| Department of Applied Physics                         | JRMP2024_24 | Design of IoT systems                                                                                                                                                 |
| School of Design                                      | JRMP2024_25 | Modular parametric components for mechanical flowers                                                                                                                  |
| School of Fashion and Textiles                        | JRMP2024_26 | Activewear design in the digital age                                                                                                                                  |
| School of Fashion and<br>Textiles                     | JRMP2024_27 | Application of nanotechnology to textiles for developing functional materials                                                                                         |
| School of Hotel and Tourism<br>Management             | JRMP2024_28 | A generational analysis of Chinese outbound travellers' travel information search strategies                                                                          |
| School of Hotel and Tourism<br>Management             | JRMP2024_29 | Adoption of environmental technologies in hotels                                                                                                                      |
| School of Hotel and Tourism<br>Management             | JRMP2024_30 | Exploring the attitudes and behaviours of elderly patrons towards self-service technologies in restaurants: A case study of elderly restaurant customers in Hong Kong |
| School of Hotel and Tourism<br>Management             | JRMP2024_31 | Food waste sustainability-oriented innovation for small- and medium-sized restaurant businesses                                                                       |



# POLYU Junior Researcher Mentoring Programme



When

**March to August 2024** 

#### What



Orientation Briefing



PolyU's **Research Project** 



**Project** Presentation



√√√, Closing ○ ÇVV Ceremony

Who

S.4 & S.5 students, or equivalent (Nominated by Principals)

### What will you get



**Certificate of Participation** 



Chance to present at academic conference in Hong Kong or overseas



Favourable consideration to outstanding students for admission to PolyU

**Application Deadline** 

31 January 2024

# Sign Up Now!



## **Enquiries**







