Admission
BSc in Physics
Programme Overview – Bachelor of Science in Physics

JUPAS Code: JS1208 / Non-JUPAS Code: 1208 / Advanced Standing Entries: 1638A

Our curriculum covers the following topics in physics:

**Fundamental Physics**

- Classical Mechanics
- Electromagnetism
- Thermodynamics
- Quantum Physics
- Experimental and Mathematical Methods
- Computational Physics

**Special Topics**

- Financial Engineering
- Soft Matter Physics
- Medical Physics
- Optics
- Material Sciences/ Solid-state Physics

To learn more about our BSc in Physics Programme, please visit our website:
https://www.cityu.edu.hk/phy/undergraduate/
Admission Route

Admission Requirements

- Satisfy the General Entrance Requirements of the University with a science or engineering background; OR
- Associate Degree or Higher Diploma Holder in a relevant discipline or other technical qualifications; OR
- Other 13-year school-leaving qualification holder (e.g. IB Diploma, GCEAL)

# Please visit our Department’s website for a full list of courses
## Entrance Requirements

**JUPAS**

<table>
<thead>
<tr>
<th>JUPAS Catalogue No. and Title</th>
<th>Minimum Level Required</th>
<th>Two Elective Subjects(^) (including M1 / M2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English Language</td>
<td>Chinese Language</td>
</tr>
<tr>
<td>JS1208 BSc Physics</td>
<td>Level 3</td>
<td>Level 3</td>
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</tbody>
</table>

\(^\) Remarks:

- Besides Category A elective subjects, Mathematics extended modules (M1/M2) and Category C other language subjects (at grade E or above) can also be used to meet the elective requirement.
- If students take both M1 and M2, they are counted as one subject only.
- Applied Learning subjects are not counted as elective subjects.
Entrance Requirements

JUPAS

Non-Chinese Speaking (NCS) Students

Applicants who have (i) learned Chinese Language for less than 6 years while receiving primary and secondary education or (ii) learned Chinese Language for 6 years or more in schools but have been taught an adapted and simpler Chinese Language curriculum not normally applicable to the majority of students in local schools can use one of the following qualifications to replace HKDSE Chinese Language Level 3 to meet the entrance requirement.

- HKDSE Applied Learning Chinese “Attained” or above
- GCEAL/AS Chinese grade E or above
- GCSE/IGCSE Chinese grade C / grade 4 or above

HKDSE other language subjects normally cannot be used to meet the Chinese language entrance requirement. Waivers may be granted only under special circumstances.
# JUPAS – Assessment of Applications

<table>
<thead>
<tr>
<th>Subjects Included</th>
<th>Main Admission Score (with weighting applied)</th>
<th>Subject Weighting</th>
<th>Elective Subject(s) (including M1 / M2)</th>
<th>Other Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>English Language</td>
<td>Chinese Language</td>
<td>Maths</td>
</tr>
<tr>
<td>Best 5 subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>include Mathematics</td>
<td>2</td>
<td>1</td>
<td>1.25</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1.5: M1/M2</td>
<td>1</td>
<td>Other elective subjects</td>
</tr>
</tbody>
</table>

**Notes:**
- Besides Category A elective subjects, Mathematics extended modules (M1/M2) and Category C other language subjects (at grade E or above) can be used to meet the elective requirement. If students take both M1 and M2, the two modules are counted as one subject only.
- Applied Learning subjects are not counted as elective subjects.
# 2021 JUPAS (HKDSE) Admission Scores

## JS1208 Bachelor of Science in Physics

**Score formula:** Best 5 subjects (include Mathematics) (with weightings applied where appropriate)

<table>
<thead>
<tr>
<th>Score Category</th>
<th>English Language</th>
<th>Chinese Language</th>
<th>Mathematics (Compulsory Part)</th>
<th>Liberal Studies</th>
<th>Elective 1</th>
<th>Elective 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Admission Score</td>
<td>Weighting: 2</td>
<td>Weighting: 1</td>
<td>Weighting: 1.25</td>
<td>Weighting: 1</td>
<td></td>
<td></td>
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<tr>
<td>Median</td>
<td>25</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lower Quartile</td>
<td>25</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

For further details of entrance requirements and application procedures, please visit the website of our [Admissions Office](http://www.admo.cityu.edu.hk/).
# Intake Quota 2022/23

**BSc Physics**  
理學士（物理學）

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<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Advanced Standing</th>
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</thead>
<tbody>
<tr>
<td><strong>Intake Quota:</strong></td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>(2022-23)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^ Indicative intake quota, subject to change
Undergraduate students who fulfilled the following criteria will be automatically considered for the scholarships:

- admitted to the BSc Physics program through the JUPAS route; and
- have placed the BSc Physics program in the Band A of JUPAS choices; and
- have attained 5* or above in any ONE of the specified subjects in English, Mathematics, M1/M2, Physics, or Combined Science (Phy+Chem)/(Phy+Bio).

Each scholarship awardee will receive up to **HK$10,000**, which is payable in Year 1 and 2.

^ Revised criteria for the entrance scholarships, subject to approval
Joint Bachelor’s Degree Program
between City University of Hong Kong and Columbia University

Year 2 Physics major students who meet certain requirements can apply for admission to the Joint Bachelor’s Degree Program between City University of Hong Kong and Columbia University in USA.

On completion of the curriculum requirements, students will earn two bachelor's degrees - one from CityU, and the other one from Columbia University.

CHENG Yuanhao and SONG Yuan graduated from the Joint Bachelor’s Degree Program in 2018.

WU Peilin (right) graduated from the Joint Bachelor’s Degree Program in 2019.

To learn more about the Joint Bachelor’s Degree Program, please visit https://www.cityu.edu.hk/phy/undergraduate/JBDP
Undergraduate plus Taught Postgraduate Degree Programme (BSc Physics + MSc Applied Physics)

• The BSc Physics + MSc Applied Physics Programme aims to nurture high caliber students through integrated learning. Undergraduate students can benefit from learning research elements normally taught at the postgraduate level. The Programme is open to new students starting from the 2021 entry and existing normative 4-year degree students of the 2020 entry.

• Eligible entrants are given an offer into the UGC-funded Bachelor of Science in Physics programme, plus a conditional offer for the self-financing Master of Science in Applied Physics programme.

• Upon successfully completing the course requirements, students would receive two separate degrees, i.e. a Bachelor of Science in Physics degree and a Master of Science in Applied Physics degree.

To learn more about the BSc Physics + MSc Applied Physics Programme, please visit https://www.cityu.edu.hk/phy/ug-plus-tpg
**Graduate Employment**

**Bachelor of Science - Physics**

**Employment Sector**
- Engineering, Architectural & Technical Services
- STEM Education
- Civil Service
- Financial/ Insurance
- Community Social & Personal Services
- Trading
- Transport, Storage & Communication
- Further studies

**Job Nature**
- Engineering & Technical Work
- Banking/Finance
- Architecture/Surveying
- Protective Services
- Teaching/Lecturing
At a Glance:
PHY Student Activities
Student Exchange

In addition to Institutional and College Level Student Exchange programmes, PHY Department offers **Departmental Level Student Exchange Programmes**

**Umeå University**  
Department of Physics  
[Sweden]  
6 Students per academic year

**Ulsan National Institute of Science and Technology**  
[Republic of Korea]  
2 Students per academic year
Student Exchange

In addition to Institutional and College Level Student Exchange programmes, PHY Department offers **Departmental Level Student Exchange Programmes**

**National Taiwan University**
Department of Materials Science and Engineering
[Taiwan]
5 Students per academic year

**National Sun Yat-sen University**
Department of Physics
[Taiwan]
5 Students per academic year
Study Tour

Industrial Exposures/ Company Visits

Visiting HKT Network Operating Centre

Visiting iAdvantage and Epsilon facilities

Visiting PCCW MCX10 Data Center
Undergraduate Research Attachment Scheme (Local and Overseas)

Through participation in the day-to-day laboratory work and/or engagement in an authentic research project setting, early research exposures enable students to identify areas of interest for further investigation.
Internship Opportunities (Local and Overseas)

The College of Science (CSCI) offers three internship schemes for CSCI students:

• Industrial Attachment Scheme (IAS)
• Co-operative Education Scheme (CES)
• Overseas Internship Scheme (OIS)
• STEM Internship Scheme

To learn more about the internship schemes, please visit https://www.cityu.edu.hk/csci/student-life-learning/internship-schemes
Internship Opportunities (Local and Overseas)

Besides the work placement opportunities offered by the College, PHY offers final year project attachment to Queen Elizabeth Hospital.

Through internship training, students learn to apply classroom learning to real life and at the same time improve their problem solving and interpersonal skills.
Career Talk

Guest Talk on Medical Physics Profession
PHY Annual Symposium

Celebration of students’ and faculties’ achievements

Frontier Research in PHY

World’s first experimental observation of the Kondo cloud done by Dr Ivan V. Borzenets

Research Showcase by students

New chips invented by Dr Sai Tak Chu accelerate data transmission

Overseas Speakers

Prof Xun-Li Wang and students at the Spallation Neutron Source in the US
Student Support Network

Each new student will be paired with one Academic Advisor and one Peer Consultant

Student Connect – Departmental Tea Gathering
To recognize students' academic and non-academic achievement, the University offers various types of scholarships and prizes which are donated by individuals, private organizations, professional bodies or academic departments.

The majority of scholarships and prizes are awarded based on academic performance and recipients are nominated by their respective Colleges/Schools/Academic Departments.

In addition to the institutional and external scholarships, the Department of Physics provides the following departmental scholarships to our students:

**PHY Entrance Scholarships for JUPAS Entrants**

Up to **HK$10,000** for students who have placed the BSc Physics program in the Band A of JUPAS choices and have attained 5* or above in any one of the specified subjects in English, Mathematics, M1/M2, Physics, or Combined Science (Phy+Chem)/(Phy+Bio).

**PHY Education Fund Scholarship(s)**

PHY full-time undergraduate students who:

(i) have achieved *outstanding academic performance* in the previous academic year [For first-year students, they should have good academic results during secondary/post-secondary education (including public examinations)]; and

(ii) have demonstrated *active participation in Departmental service*.

Credits will also be given to proven record of extra-curricular activities, leadership and community service.
Contacts

Department of Physics:
https://www.cityu.edu.hk/phy

Admission Office:
https://www.admo.cityu.edu.hk

BSc Physics Admissions Tutor:
Professor KS Chan
📞 3442-7814
✉️ apkschan@cityu.edu.hk

BSc Physics Deputy Admissions Tutor:
Dr WC Yu
📞 3442-7702
✉️ wingcyu@cityu.edu.hk