BSc (6901) Major and Minors Offered

1. Physics Major
   - New curriculum structure since 2018; Learn the skill set first
   - Themes (can choose 0, 1, or 2): Astrophysics, Computational Physics, Experimental Physics, Theoretical Physics

2. Physics Major (Intensive)
   - Solid foundation on the subject in both breath and depth
   - Targeted for students who want to pursue further studies
   - Completion of Intensive Majors and/or themes are important factors in HKU physics postgraduate admission consideration

3. Physics Minor
   - Basic foundation of Physics
   - Helpful for study of other science and non-science disciplines

4. Astronomy Minor
   - Suitable for both science and non-science students
   - Training on both observational and theoretical aspects
   - Department will continue to aggressively pursue astronomical research and recruit postgraduate students in astronomy.

Why Study Physics at HKU?
Understand how the world works
Do some fun experiments
Participate in forefront research
Develop quantitative, analytical & problem solving skills

Physics Major (Intensive) Curriculum in 2021 – 22

Skill Set Courses
- Computing
- Mathematics
- Model building
- Problem solving

Introductory Core Courses
- Calculus-based physics incorporated with vectors
- Stress daily-life connection
- Mechanics, Electricity & magnetism, Heat & thermodynamics, Quantum physics

Advanced Core Courses
- Formal training in physics with more abstraction
- Advanced mathematical skills required
- Core university undergraduate education

Selection of Themes
(1) Course cluster to build expertise in specific area
(2) Capstone project related to the theme
(3) Enhanced training in physics for postgraduate studies

For non-Intensive major, require 2 out of the * courses (also PHYS2160)
## Our Research Groups

- Astrophysics
- Centre of Theoretical & Computational Physics
- Condensed Matter Experiments
- Condensed Matter Theory
- Nuclear Physics Experiments
- High Energy Physics Experiments
- Material Science
- Quantum Information Theory

## Where did our students go for further studies in recent years?

- Harvard University
- Princeton University
- Stanford University
- MIT
- Columbia University
- University of Oxford
- University of Cambridge
- McGill University
- Brown University
- University of Illinois at Urbana-Champaign
- Imperial College London
- Johns Hopkins University
- University of Toronto
- Universität Hamburg
- Max Planck Institute for Radio Astronomy
- Max Planck Institute for Extraterrestrial Physics
- Max Planck Institute for Astronomy
- Leiden University

### Sample Major in Physics (Intensive)

#### Year 1 & 2 Curriculum (minimum)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
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<tbody>
<tr>
<td><strong>Year 1</strong></td>
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<tr>
<td>PHYS1150 Problem Solving</td>
<td>PHYS2250 Intro Mechanics</td>
</tr>
<tr>
<td>PHYS1650 Nature or COMP1117, MATH 1013 or STAT 1603</td>
<td>PHYS2055 Intro Relativity or PHYS2255 Intro E&amp;M</td>
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<td>PHYS2150 Method I</td>
<td>PHYS2155 Method II</td>
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<tr>
<td>PHYS2261 Intro Heat &amp; Thermo</td>
<td>PHYS2160 Intro Compu Phys or PHYS2650 Modern Astro</td>
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<tr>
<td>PHYS2265 Intro Quantum Phy</td>
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### Sample Major in Physics (Intensive, astrophysics theme)

#### Year 1 & 2 Curriculum

<table>
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**Select 2 out of 6**

**Sample curriculum for reference only, more sample curriculum available at the Department webpage.**

You should consult your course schedule with Course Selection Advisor for your own selection.