

Sustainable Development Goals (SDGs) 4: Quality Education

Metric Reference 4.3.1

(Public resources (lifelong learning): Provide free access to educational resources for those not studying at the university – e.g. computers, library, online)

Free access to campus facilities and equipment (Laboratory)

Description

Evidence (source: <https://sci.ui.ac.id/en/lab-komputer/>)

FMIPA UI has laboratory facilities to support learning and research activities.

1. Multidisciplinary Research Computer Lab
 - a. Room 301
 - b. Room 305
 - c. Room 803
 2. Computer Geography Lab
 - a. Room 101
 - b. Room 305
- Department of Mathematics (sources: <https://math.ui.ac.id/en/facilities/>)

The Department of Mathematics FMIPA UI owns 5 computing laboratories with 90 PCs & workstations. All laboratories are connected to LAN & WAN facilities for internet access. Each PC & workstation is equipped with supporting software such as: Matlab, maple, Lingo, Visual Basic, Visual/Borland C++, Delphi, Oracle, Java, SAS, SPSS, Splus, etc. In addition, Department of Mathematics students are facilitated with 5 Research Laboratories and reading rooms
 - Department of Physics (sources: <https://physics.ui.ac.id/about-us/laboratory/>)
 1. Advanced Physics Laboratory
 2. Basic Physics Laboratory
 3. Bioimaging Technology Laboratory
 4. Biomedical Instrumentation Laboratory
 5. Biophysics Laboratory
 6. Chemical Physics Laboratory
 7. Computer Laboratory
 8. Control and Instrumentation Laboratory
 9. Corrosion Laboratory
 10. Electronics Laboratory
 11. Geothermal Exploration Laboratory
 12. Functional Material Laboratory
 13. Magnetic Characterization Laboratory
 14. Mechanical Preparation Laboratory
 15. Mechanical Workshop
 16. Medical Physics Laboratory
 17. Micromagnetic BioNano Technology Laboratory
 18. Multiferroic Material Laboratory

19. Nano-Optics Laboratory
20. Optical Characterization Laboratory
21. Preparation Laboratory
22. Theoretical Nuclear-Particle Physics and Astrophysics
23. Thermal Preparation Laboratory

Department of Chemistry

1. Instruments and Services (UI-Chem) Laboratory
 - Fume Hood
 - HPLC (Shimadzu Prominance 10)
 - Spektro UV-Vis (Shimadzu)
 - FTIR (Shimadzu IR Prestige 21)
 - AAS (Shimadzu AA-6300)
 - GC (Shimadzu GC-2010)
 - LC-MS-MS (Shimadzu Prominance 20-Abesciex)
 - DTG 60 AH (Shimadzu)
 - DSC 60 A (Shimadzu)
 2. Computational Chemistry Laboratory
 - Computer
 - Hyperchem (software)
 - Chemsuite (software)
 - ChemOffice (software)
 3. Basic and Inorganic Chemistry Laboratory
 - Fume Hood
 - pH meter
 - UV-Vis (Spectronic 20, Korea)
 - FTIR (Alpha Bruker)
 - Electronic Scales
 - Oven (Mettler)
 4. Physical Chemistry and Analysis Laboratory
 - Fume Hood
 - Electronic Scales
 - pH meter
 - Turbidimeter
 - Polarimeter
 - Spectrophotometer (Spectronic 20)
 - Oven (Mettler)
- Department of Biology (source: <https://biologi.ui.ac.id/en/facilities-and-amenities/>)
 1. Facilities
 - Inverted Microscope
 - Autoclave
 - Incubator and Shaking incubator
 - Centrifuge and Microcentrifuge

- CO₂ Incubator
- PCR
- Electrophoresis Apparatus
- Sonicator
- Fermentor
- Vacuum Rotary Evaporator
- Microtome
- Tissue Culture Hood
- Growth Chamber
- Oven
- Immunoelectrophoresis Apparatus
- Analytical Balance
- UV-VIS-NIR Recording Spectrophotometer
- HPLC Diode Array automatic injection
- Biosafety Cabinet

2. Infrastructure

- Green house
- Orchid House
- Butterfly House
- Animal (rodent) House
- Laboratorium CoE Indigenous Biological Resources-Genomic Studies
- Colab Laboratory Biologi FMIPA UI-PT Merck CLS
- Instrument Laboratory
- Bioimaging Laboratory
- Applied Microbiology Laboratory
- Teaching Laboratory

3. Research Station

- City forest of Universitas Indonesia
- SALAM UI and Situ Alam FMIPA UI
- Pusat riset Gibon (Gibbon Centre), Bedogol, Gunung Halimun Salak
- Pusat studi Primata Smutzer, KB Ragunan, Jakarta
- Legok Heulang, Taman Nasional Gunung Halimun
- Natai Lengkuas, Taman Nasional Tanjung Puting
- Puncak Beringin, Sulawesi Tengah
- Suaq Balimbing, Ketambe Aceh

4. Collection

- Herbarium Collection
- Animal specimen Collection
- Microorganism Collection (microalga and Univ. of Indonesia Culture Collection/UICC)
- Reading Collections (buku teks, jurnal, laporan riset)

- Department of Geography (source: <https://geografi.ui.ac.id/portal/fasilitas/laboratorium/>)

1. Physical Geography

The Physical Geography Laboratory consists of geology, geomorphology, hydrology, and soil laboratories. In this lab there are several types of equipment used to carry out geological surveys, namely geological hammer, geological compass, microscope, rock comparator, Wentworth grain scale, altimeter, and hagameter. The facilities in this rock laboratory are managed by lecturers and students. Currently there are around 100 rock collections in the Geology Lab. Our collection mostly consists of igneous rocks, metamorphic rocks and sedimentary rocks sourced from various regions, especially in the Sukabumi and Kebumen areas.

2. Spatial Data Processing Laboratory

The Spatial Data Processing Laboratory is a laboratory for practical courses such as Geographic Information Systems Practicum, Remote Sensing Practicum, Surveying and Mapping, Digital Cartography, Geographic Information System Applications, WEB GIS Design, and Radar Remote Sensing.

This laboratory is also used for training held by the Department of Geography and various collaborating institutions, such as LPEM FEB UI, ESRI Indonesia, Open Street Map, etc.

3. Computing Laboratory

In this lab there are 25 sets of computer equipment with Windows 8 OS specifications, Intel i5 processor, 4GB RAM, 1 TB HDD, and 16 inch monitor, and all devices are connected to the LAN and Wifi network. With these specifications, this laboratory is used for relatively light data processing at UPGeo. Some of the software we use in this practicum is Microsoft Excel, SPSS, and R.