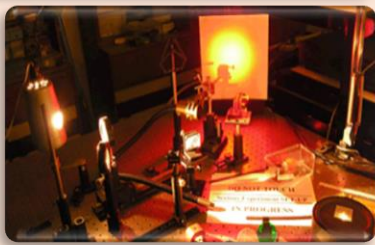


PHYSICS & MATERIALS SCIENCE

ABOUT US

The Department of Physics was established in 1964 (2507 B.E.) along with five other departments in the Faculty of Science, Chiang Mai University. Since then, the department's academic and research have been diversified to several fields ranging from Physics, Materials Science, Astronomy, and Geophysics.



ACADEMIC

The Department of Physics and Materials Science offers a variety of courses of semester duration covering the main branches of physics. For BS (Physics), first and second year courses are designed to serve both students who intend to proceed further in physics and those planning to specialize in other branches of science for which some knowledge of physics is essential. The third and fourth year scheme in physics provides a broad scope in current physical thought and modern techniques which leads to the Bachelor of Science in Physics. The course available cover all the important topics of physics and provide a firm foundation upon which a professional physicist can build his career, either fundamental research, industry, or teaching.

In addition, the Department also offers courses which leads to the Bachelor of Science in Materials Science. This field of Physics emphasized on studies of physical properties of materials enticed in industrial and scientific work, namely the conductivity, the superconductivity, the electrical resistivity, the light responsivity, the nuclear property, etc. The promotion of fundamental understanding of these basic properties of materials is important to form a basis of R&D activities as well as to create a new source of technology in the field of industrial application.



Faculty Members

Amphol WONGJAMRAS, PhD (Physics)
Aniwat SOOKSAWAT, MS (Physics)
Anucha WATCHARAPASORN, PhD (Materials and Engineering)
Apichat LIMPICHAIPANIT, D.Phil. (Materials Science)
Arnon CHAIPANICH, PhD (Concrete Technology)
Arthit LAPHIRATTANAKUL, MS (Physics)
Atchara PUNYA, PhD (Physics)
Atcharawon GARDCHAREON, PhD (Physics)
Atipong NGAMJARUROJANA, PhD (Materials Science)
Chaikarn LIEWHIRAN, PhD (Materials Science)
Chaiyasit BANJONGPRASERT, D.phil in Materials (Materials)
Chankit KHANCHONG, MS (Physics)
Chanokporn CHAIWONG, PhD (Physics)
Chatdanai BOONRUENG, PhD (Materials Science)
Cherdsak SAELEE, PhD (Physics)
Chitrlada TONGBAI, PhD (Applied Physics)
Chunpen SILAWONGSAWAT, M.Sc. (Geophysics)
Dheerawan BOONYAWAN, PhD (Physics)
Duangmanee WONGRATTANAPAISA, PhD (Physics)
Gobwute RUJJANAKUL, PhD (Physics)
Jatuporn SAISUT, PhD (Physics)
Jirakan NUNKAEW, PhD (Physics)
Kamonpan PENGPAT, PhD (Physics)
Khem CHIRAPATPIMOL, PhD (Physics)
Komsanti CHOKETHAWAI, PhD (Materials Science)
Manoch NAKSATA, PhD (Materials Science)
Narupon CHATTRAPIBAN, PhD (Physics)
Natda WETCHAKUN, PhD (Materials Science)
Nirut PUSSADEE, PhD (Bio-Physics)
Nongluk TONGNOPPARAT, MS (Physics)
Orawan KHAMMAN, MS (Materials Science)
Orawan WIRANWETCHAYAN, PhD (Physics)
Pipat RUANKHAM, PhD (Energy Science)
Pisith SINGJAI, PhD (Materials Science)
Pongthep ARKORNSAKUL, MS (Physics)



Undergraduate Curriculum

B.S. (PHYSICS)

First Year

Fundamental English 1
Integrated Mathematical Sciences
Chemistry 1
Calculus 1
Physics 1

Fundamental English 2
Basic Biology 1
Calculus 2
Physics 2
Science & Mathematics (3)

Second Year

Critical Reading & Effective Writing
Introduction to Computer
Mathematical Method 1
Physics of Vibrations and Waves
Intermediate Physics Lab 1
Classical Mechanics
Humanities & Social Sciences (3)

English in Science & Technology
Mathematical Method 2
Mathematical Method 3
Intermediate Physics Lab 2
Intro. to Electromag. Theory 1
Modern Physics
Humanities & Social Sciences (3)

Third Year

Thermodynamics
Computational Physics
Advanced Physics Lab 1
Quantum Mechanics 1
Optical Physics
Elementary Statistics
Humanities & Social Sciences (3)

Learning through Activities (2+1)
Fundamental Electronics
Advanced Physics Lab 2
Quantum Mechanics 2
Statistical Physics
Intro to Electromag. Theory 2

Fourth Year

Seminar in Physics
Major Electives (9)
Free Electives (6)

Independent Study
Major Electives (6)

B.S. (MATERIALS SCIENCE)

First Year

Fundamental English 1
Integrated Mathematical Sciences
Chemistry 1
Calculus 1
Physics 1

Fundamental English 2
Chemistry 2
Calculus 2
Physics 2
Humanities & Social Sciences (3)
Science & Mathematics (3)

Second Year

Critical Reading & Effective Writing
Mathematical Method 1
Electricity & Magnetism
Intro. to Materials Science
Crystal Structure & Imperfections
Phase Equilibria & Kinetics of Mats.
Materials Science Lab 1

English in Science & Technology
Introduction to Computer
Basic Biology 1
Problem-Based Learning in Mat Sci
Phase Diagrams and Applications
Materials Processing
Mech., Thermal, Optical Properties
Materials Science Lab 2

Third Year

Prop. Proc. & Appl. of Polymer
Elementary Statistics
Ceramics and Glasses
Elec & Mag Properties of Materials
Materials Science Lab 3
Metals and Alloys

Learning through Activities (2)
Fundamental of Electronics
Materials Characterisation Tech
Composite Materials
Semiconductor Technology
Workshop for Mat Sci Students

Fourth Year

Seminar in Materials Science
Major Electives (3)
Humanities & Social Sciences (6)
Learning through Activities (1)
Free Electives (3)

Independent Study
Major Electives (3)
Free Electives (3)

Pomrat WATTANAKASIWICH, PhD (Physics Education)
Pruchya MALASRI, MS (Physics)
Rattiyakorn RIENYOL, PhD (Materials Science)
Sakhorn RIMJAEM, PhD (Physics)
Sakon SANSONGSIRI, PhD (Physics)
Siramas KOMONJINDA, PhD (Astronomy)
Siriporn CHAISRI, PhD (Geophysics)
Somchai THONGTEM, PhD (Metallurgical Engineering)
Sujittra RATJIRANULOOL, PhD (Environmental Sciences)
Sukum EITSSAYEAM, PhD (Materials Science)
Sumet SAKULSERMSUK, PhD (Physics)
Supab CHOOPUN, PhD (Chemical Physics)
Supachai NAKAPAN, D.Tech.Sc. (Remote Sensing and GIS)
Supon ANANTA, PhD (Materials Science)
Surachet PHADUNGDHITIDHADA, PhD (Physics)
Suwicha WANNAWICHIAN, PhD (Astrophysics)
Thipsukon KHUMSAENG, PhD (Environ.Eng. and Management)
Udomrat TIPPAWAN, PhD (Physics)
Wandee THAMJAREE, PhD (Materials Science)
Waranont ANUKOOL, PhD (Physics)
Wichean KRIWATTANAWONG, PhD (Astrophysics)
Wim NHUAPENG, PhD (Physics)
Wiradej THONGSUWAN, PhD (Materials Science)
Wonchai PROMNOPAS, PhD (Physics)
Yongyut LAOSIRITAWORN, PhD (Physics)

Available Graduate Programs:

- MS (Physics)
- PhD (Physics) (*Int'l Program*)
- MS & PhD (Applied Physics)
- MS (Materials Science)
- PhD (Materials Science) (*Int'l Program*)
- MS (Astronomy)
- MS (Teaching Physics)
- MS (Applied Geophysics)
- MS & PhD (Environmental Science) (*Int'l Program*)

