

DE LA SALLE UNIVERSITY

SCIENCE SCIENCE



The College of Science at De La Salle University offers relevant, diverse, and progressive graduate programs for academics, researchers, and industry professionals.

With CHED Centers of Excellence in Biology, Chemistry, Mathematics, and Physics, and a Center of Development in Statistics, the College is geared towards developing a community of scientists dedicated to advance scientific research for social development.

Respected faculty, comprehensive research activities, and well-equipped laboratories allow students to pursue path-breaking research and build on their experiences for a fulfilling career in the field.

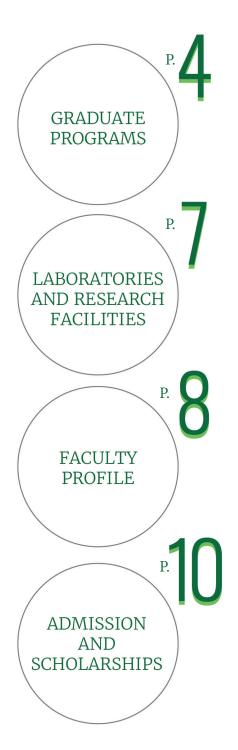
OVERVIEW

Graduate programs of the DLSU College of Science give students the opportunity to look closely at the relationships of life, inviting them to engage in research for its preservation. Students, faculty, and research staff explore vitality to promote good health and improve the overall quality of life.

Students are also prepared for their mastery of the physical and natural forces, giving them the tools to formulate theoretical and practical responses to current global challenges. Students solve the beautiful complexity of the world.

COLLEGE STRENGTHS

- 18 graduate program offerings covering a wide area of the Life Sciences and Physical and Natural Sciences
- 85% of faculty are doctorate holders from Universities around the world.
- Full or partial scholarships covering tuition, miscellaneous fees, and research expenses
- State-of-the-art facilities
- · Existing partnerships with industry, government, regional institutions, and international funding agencies
- · CHED Centers of Excellence in Biology, Chemistry, Mathematics, and Physics
- CHED Center of Development in Statistics
- · Accredited by the ASEAN University Network (AUN)





DOCTOR OF PHILOSOPHY IN BIOLOGY

(37 UNITS)

The program is designed to provide advanced study and research in the biological sciences. Strong emphasis is placed on the development of scientific skills and values which are useful in the conduct of independent field investigation and/or laboratory experimentation. A study program consisting of selected coursework and independent projects is prepared for each student. Opportunities for representation and publication of student research are also provided.

DOCTOR OF PHILOSOPHY IN CHEMISTRY

(34 UNITS)

The program is designed to provide advanced study research in Chemistry. The PhD degree in Chemistry is earned by those able to demonstrate breadth and depth of knowledge of the facts and theories of Chemistry and the ability to conduct independent chemical research as evidenced by the acceptance of a doctoral dissertation.

DOCTOR OF PHILOSOPHY IN CHEMISTRY - DOUBLE DEGREE WITH OSAKA UNIVERSITY

(69 UNITS)

The program provides the opportunity to simultaneously obtain two PhD degrees after accomplishing coursework and research in DLSU and Osaka University. Research is meant to be guided by supervisors from the two universities.

DOCTOR OF PHILOSOPHY IN CHEMISTRY

(STRAIGHT PROGRAM, 69 UNITS)

The straight program is intended for BS Chemistry applicants with high aptitude for chemistry and outstanding research capabilities backed by research experience. Students in the MS program may be accepted subject to meeting certain requirements.

DOCTOR OF PHILOSOPHY IN MATHEMATICS (STRAIGHT PROGRAM, 69 UNITS)

DOCTOR OF PHILOSOPHY IN MATHEMATICS

(REGULAR TRACKING, 42 UNITS)

The program (under straight and regular tracks) is aimed at providing training for the development of research capabilities in mathematics and its possible applications. It intends to develop highly trained mathematicians who can address the needs of the other sciences and industry as well.

DOCTOR OF PHILOSOPHY IN PHYSICS (STRAIGHT PROGRAM, 63 UNITS)

DOCTOR OF PHILOSOPHY IN PHYSICS

(REGULAR PROGRAM, 45 UNITS)

The program provides students with advanced graduate training in Physics, preparing them for scientific careers in academe as well as in industry. The strength of the department lies in solid state physics, materials science, semiconductor physics, theoretical physics, laser remote sensing, optics, computational physics, and instrumentation. The uniqueness of the program lies on inquiry-based courses, which is learner-centered and project-oriented. The straight PhD program attracts students who would like to finish their PhD without taking the masteral program.

MASTER OF SCIENCE IN BIOLOGY

(37 UNITS)

The program is designed to provide a strong foundation in concepts and principles of the life sciences, to develop appropriate skills and to inculcate in the students a proper attitude toward biological research and investigation. The courses are organized to accommodate the varied interests of students pursuing specialization in the environmental and paramedical fields, among others.

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE AND ECOSYSTEM MANAGEMENT

(37 UNITS)

The program intends to provide professionals with an in-depth technical background in environmental science as well as skills, attitudes, and values in the practice of environmental management. It is a transdisciplinary partnership of the different units of the university coordinated by the Biology Department. The program trains students to prepare environmental risk assessment and environmental impact assessment and collaborate with various institutions for research on environmental issues.

MASTER OF SCIENCE IN CHEMISTRY

(36 UNITS)

The program is designed to provide students with an extensive grounding in chemical concepts and training in chemical techniques at the graduate level, to update them on recent developments in chemistry, and to encourage independent experimental work.

MASTER OF SCIENCE IN MATHEMATICS

(36 UNITS)

The program prepares students for research and for teaching senior level mathematics courses at the undergraduate level. The program lays the foundation studies in the doctoral level. It aims to update the skills of mathematicians, enabling them to take on challenging roles in the academe, government service, and the industry.

MASTER OF SCIENCE IN STATISTICS

(37 UNITS)

The program prepares students for research, using applied statistics, and for graduate-level work, providing them the necessary foundation for doctoral studies. It is aimed at developing future statisticians for the academe, government service, and industry.

MASTER OF SCIENCE IN PHYSICS

(36 UNITS)

The program is designed to develop competent manpower to fill the demands of industry and academe. It is open to scientists, researchers, and teachers, who, at the end of the program, have acquired a deeper understanding of the fundamental principles and concepts in physics that would enable them to make creditable contributions to the research and development programs of industries involved in solid state, optics, semiconductor, or computational physics.

MASTER OF SCIENCE IN APPLIED PHYSICS

(36 UNITS)

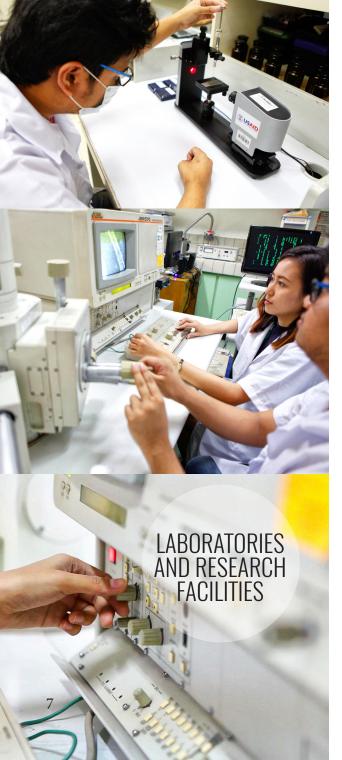
The program is designed around the idea that physics provides fundamental understanding of relevant problems in society and provides creative and innovative solutions to these. The program is a balance of theoretical and experimental courses aimed at facilitating students' understanding of phenomena, the theoretical models that explain them, the measurements that illuminate them, and, most importantly, the connections among the three.

NON-THESIS PROGRAMS

The College of Science offers the following non-thesis master's programs that are especially designed for the CHED Faculty Development program. These programs are aimed at helping upgrade the academic competencies and qualifications of secondary and tertiary faculty in the country.

MASTER IN BIOLOGY
(36 UNITS)
MASTER IN CHEMISTRY
(36 UNITS)
MASTER IN MATHEMATICS
(36 UNITS)
MASTER IN PHYSICS
(36 UNITS)





RESEARCH LABORATORIES AND FACILITIES

High Performance Computing Laboratory iNano Laboratory Molecular Science Unit Laboratory Central Instrumentation Facility

OTHER RESOURCES

CENTER FOR NATURAL SCIENCE AND ENVIRONMENTAL RESEARCH

RESEARCH UNITS:

- Applied Research for Community, Health, and Environment Resilience and Sustainability Unit
- · Biological Control Research Unit
- · Computational Materials Design Research Unit
- · Condensed Matter Unit
- · Materials Science and Nanotechnology Unit
- · Microalgal Systematics and Applied Phycology Research Unit
- · Natural Products and Drug Development Unit
- · Optics and Instrumentation Research Unit
- · Organic Materials and Interfaces Unit
- · Technologist for Biodiversity Use and Conservation Unit

MANILA JOURNAL OF SCIENCE

A peer reviewed and abstracted online journal for science and technology researches published by the College

Br. Alfred Shields FSC Ocean Research (SHORE) Center Br. Alfred Shields FSC Marine Station, Brgy. Matuod, Lian, Batangas

LIBRARY RESOURCES

The availability of wireless ports, The Learning Commons, smart classrooms, and access to international journals and electronic databases in the University facilitate students' exposure to advanced science research. As a member of the ASEAN University Network, the University allows students access to the library databases of top universities in the ASEAN region.

BIOLOGY DEPARTMENT

Chona Camille Abeledo, PhD (De La Salle University)
Systematics and Population Genetics

Esperanza Maribel Agoo, PhD (De La Salle University)
Plant Systematics, Plant Taxonomy and Conservation

Noel Alfonso PhD (University of Minnesota, USA) Animal Physiology and Reproductive Biology

Divina Amalin, PhD (University of Florida, USA) Entomology, Integrated Pest Management, Biological Control, Spider Taxonomy, Biodiversity

Esperanza Cabrera, PhD (University of Santo Tomas) Medical Bacteriology

Jose Santos Carandang VI, PhD (Wurzburg University, Germany) Environmental Management and Urban Ecology, Plant Stress Physiology

Florencia Claveria, PhD (University of Cincinnati, USA) *Parasitology and Zoonitic Infections*

Mariquit delos Reyes, PhD (University of Maryland, USA) Biotechnology

Ma. Luisa Enriquez, PhD (University of the Philippines–Diliman) Cytogenetics

Mary Jane Flores, PhD (De La Salle University)
Parasitology, Tick Taxonomy and Systematics, Zoonotic Infections

Jose Isagani Janairo, PhD (Hokkaido University, Japan) Biological Chemistry

Ma. Carmen Lagman, PhD (University of the Philippines-Diliman) Population and Quantitative Genetics of Fish, Molecular Ecology, Bioinformatics

Wilfredo Roehl Licuanan, PhD (University of Southern California, USA) Coral Reef Ecology, Marine Ecology

Emelina Mandia, PhD (University of the Philippines–Los Baños) Ethno–botany, Plant Systematics and Ecology

Michael Ples, PhD (University of the East Ramon Magsaysay Medical Center)

Anatomy, Otorhinolaryngology, Zoology

Gliceria Ramos, PhD (University of the Philippines–Diliman) Developmental Biology

Mark Christian Felipe Redillas, PhD (Myongji University, South Korea)

Crop Biotechnology

CHEMISTRY DEPARTMENT

Laurenzo DV Alba, MS (De La Salle University)
Biochemistry

FACULTY PROFILE

The College's faculty members are experts in wide and diverse areas of Biology, Chemistry, Environmental Science, Mathematics, Statistics, and Physics. Seventy-one percent of faculty members are doctorate holders from universities here and abroad. They include specialists from other academic institutions, government, industry, and the private sector.

Glenn Alea, PhD (De La Salle University)
Organic Synthesis

Drexel Camacho, PhD (Tohoku University, Japan) Polymers and Biopolymers, Organometallic Synthesis

Rafael Espiritu, PhD (Osaka University, Japan) Membrane Biophysics, Programmed Cell Death

Francisco Franco Jr., PhD (Osaka University, Japan) Molecular Systems Design, Materials Chemistry

Emmanuel Garcia, PhD (De La Salle University) Food and Bioanalytical Chemistry, Coffee Chemistry

Joel Garcia, PhD (Wayne State University, USA) Molecular Imaging, Lanthanide & Nanochemistry, Sensor Development

Lourdes Guidote, PhD (University of Tokyo, Japan)
Inorganic Synthesis

Gerardo Janairo, DSc (Eberhard-Karls-Universitat zu Tubingen, Federal Republic of Germany) Organic Synthesis, Carbohydrate Chemistry

Jaime Raul Janairo, PhD (De La Salle University)
Natural Products Chemistry

Nancy Lazaro-Llanos, PhD (Ohio University, USA) Biological Membranes, Peptide Chemistry

Faith Marie Lagua, MS (De La Salle University) Organic Synthesis, Medicinal Chemistry

Raymond Malabed, PhD (Osaka University, Japan) Membrane Biochemistry and Biophysics, Food Chemistry

Edna Mijares, MS (University of the Philippines–Los Baños) Analytical Chemistry

Vincent Antonio Ng, PhD (De La Salle University) Natural Products Chemistry

Marissa Noel, PhD (Ateneo de Manila University) Food Chemistry, Plant Tissue Culture

David Peñaloza Jr., PhD (University of Connecticut, USA) *Polymer Chemistry, Colloids, and Surface Science*

Eric Punzalan, PhD (University of Connecticut, USA) Organic Chemistry, Environmental Chemistry

Consolacion Ragasa, PhD (University of the Philippines–Diliman) *Natural Products Chemistry*

Julita Robles, PhD (De La Salle University) Inorganic Chemistry, X-ray Crystallography

Priscilla Samonte, MS (University of Santo Tomas) Analytical Food Chemistry

Rodolfo Sumayao Jr., PhD (University College Dublin, Ireland) Redox Biochemistry and Signalling, Translational Medicine, Biomarker Discovery

Roger Tan, PhD (Hokkaido University, Japan) Life Science, Biochemistry, Advanced Glycobiology

Peter Immanuel Tenido, MBS (Rutgers University) Materials Science

Phoebe Trio, PhD (Kagoshima University, Japan) Analytical Food Chemistry

Derrick Ethelbhert Yu, PhD (Hokkaido University, Japan) Materials Science

MATHEMATICS AND STATISTICS DEPARTMENT

Jan Harold Alcantara, MS (De La Salle University) Differential Equations, Mathematical Modelling

Rechel Arcilla, PhD (University of the Philippines–Los Baños) Sampling and Small Area Estimation

Francis Joseph Campeña, PhD (De La Salle University) Graph and Design Theory

Luisette Candelaria, MS (Washington State University, USA) Linear Algebra

Rafael Reno Cantuba, PhD (De La Salle University) Associative Algebras, Lie Algebra

Kristine Joy Carpio, PhD (Australian National University, Australia) Stochastic Processes

Frumencio Co, MS (University of the Philippines–Diliman) *Biostatistics, Epidemiology*

Isagani Jos, PhD (De La Salle University) Graph Theory, Actuarial Science

Angelyn Lao, PhD (Rostock University, Germany) Mathematical Modelling, Systems Biology

Cresencia Lawas, MS (University of the Philippines-Lo Baños) Graph Theory

Robert Neil Leong, MS (De La Salle University) Statistical Surveilance

Yvette Lim, PhD (De La Salle University) Graph Theory Ederlina Nocon, PhD (De La Salle University and Kyushu University, Japan)

Coding Theory

Shirlee Ocampo, MS (De La Salle University) Group Theory, Bayesian Statistics

Arturo Pacificador Jr., PhD (University of the Philippines-Los Baños)
Survey Sampling

Arlene Pascasio, PhD (University of the Philippines-Diliman) *Algebraic Combinatorics*

Rigor Ponsones, MS (Ateneo de Manila University)
Combinatorics

Jose Tristan Reyes, PhD (University of Nebraska-Lincoln, USA) Functional Analysis

Leonor Ruivivar, PhD (University of the Philippines-Diliman) Graph Theory/Analysis

Sonia Tan, MS (Ateneo de Manila University) Number Theory

Regina Tresvalles, MS (University of the Philippines–Diliman) Actuarial Science

Melvin Vidar, PhD (De La Salle University) Algebraic Combinatorics, Representation Theory

John Vincent Morales, PhD (Tohoku University, Japan) Algebraic Combinatorics, Asymptotic Spectral Analysis

Severino Gervacio, PhD, Professor Emeritus (Ateneo de Manila University) *Graph Theory*

Eduardo Mendoza, PhD, Adjunct Professor (University of Bonn, Germany) Algebra, Mathematical Modelling

PHYSICS DEPARTMENT

Nelson B. Arboleda Jr., PhD (Osaka University, Japan) Surface and Interface Physics, Theoretical/Computational Physics

Rene Batac, PhD (University of the Philippines-Diliman) Complex Systems

Ermys B. Bornilla, PhD Candidate (De La Salle University) Theoretical Physics

Melanie Y. David, PhD (Osaka University, Japan) Nanoscale Materials Modeling, Theoritical/Computational Physics

Jade R. Dungao, PhD (Tokyo University, Japan) Biomedical Physics

Ma. Cecilia D. Galvez, PhD (University of the Philippines–Diliman) Photonics, LIDAR

Richard Rudolf C. Hartmann, PhD (University of Exeter) Condensed Matter Physics Maria Carla F. Manzano, PhD (De La Salle University) Conducting Polymers, Material Science

Joaquin Lorenzo Moreno, PhD (Osaka University, Japan) Theoretical/Computational Physics

Joselito Muldera, PhD (University of the Philippines) Terahertz Spectroscopy, Semiconductor Physics

Michelle T. Natividad, PhD (De La Salle University) Computational Physics and Materials Science

Shirley T. Palisoc, PhD (Okayama University) Materials Science

Romeric F. Pobre, PhD (University of the Philippines–Diliman) Instrumentation and Optics, Computational Physics and Photonics

Christopher T. Que, PhD (Osaka University, Japan) Terahertz Spectroscopy, Semiconductor Physics

Reuben V. Quiroga, PhD (University of the Philippines) *Solid State Physics*

Ofelia T. Rempillo, PhD (University of Calgary, Canada) Atmospheric Science and Stable Isotope Science

Nesse Grace U. Resurreccion, MS, (University of the Philippines – Los Baños)
Environmental Physics

Emmanuel Rodulfo, PhD (University of the Philippines-Diliman) Theoretical Physics

Lydia Roleda, PhD (University of the Philippines-Diliman) Solid State Physics, Physics Education

Robert C. Roleda, PhD (University of the Philippines-Diliman) Theoretical Physics

Gil Nonato C. Santos, PhD (University of the Philippines-Diliman) Nanomaterials, Materials Science and Nanotechnology

Edgar A. Vallar, PhD (University of the Philippines-Diliman) Photonics, LIDAR

Al Rey C. Villagracia, PhD (De La Salle Univerity)
Computational Physics



DLSU Scholarship and Financial Assistance (SFA) Program For inquiries on school-funded, industry-sponsored and alumni grants, tuition discounts, and loan programs, contact:

Office of Admissions and Scholarships

2/F Henry Sy, Sr. Hall

Telephone: (632) 523-4230 or (632) 524-4611 to 19 local 166

E-mail: scholarships@dlsu.edu.ph

For more information, contact:

Website: http://www.dlsu.edu.ph/offices/sfa

Department of Science and Technology (DOST) Scholarship Programs
The DOST is offering scholarships through the Accelerated Science and Technology Human Resource Development Program (ASTHRDP).

Dr. Glenn V. Alea
Dean
College of Science
Telephone: (632) 524-4611 local 520 / (632) 524-0451
E-mail: deancos@dlsu.edu.ph

Commission on Higher Education (CHED) Scholarships The Department of Education, through the Commission on Higher Education (CHED), provides scholarships to deserving science faculty members of tertiary schools. For more information, contact:

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