



PERDANA UNIVERSITY

DU026(B)

Where the past and the future is present

PROGRAMMES IN BIOINFORMATICS

School of Data Sciences (PU-SDS)



INTRODUCTION FROM THE HEAD OF PU-SDS EDUCATION UNIT

Nik Elena Nik Mohamed



Bioinformatics is a transformative science with a pivotal role in the growth of biotechnology and pharmaceutical industries. With the advancements in life sciences in general, specifically in molecular biology, genomics, genetics and medical sciences, there is currently a high demand for bioinformaticians worldwide. However, this demand is unmet, in-part due to shortage in the supply of qualified and trained bioinformaticians.

Perdana University School of Data Sciences (PU-SDS) offers several postgraduate programmes in bioinformatics at various levels of qualifications (Postgraduate Diploma, PgDip; Master of Science, MSc; and Doctor of Philosophy, PhD) to help meet the demand.

The over-arching goal of the programmes is to produce individuals (students, researchers, and IT professionals supporting biologists) who are able to perform well in the research realm of the New Biology of tomorrow. These programmes have been carefully designed in consultation with leading academic and industry experts of the field.

We invite you to join us on this exciting journey!

WHY STUDY BIOINFORMATICS AT PERDANA UNIVERSITY?

Perdana University School of Data Sciences, through its two Centres for Bioinformatics and Computing, provides a nurturing environment for students to prepare themselves for the New Biology of tomorrow, which will be more data and precision-driven.

The following are the key strengths of the University in the field of bioinformatics:

- Highly qualified and published faculty with international exposure and experience
- All the faculty collectively cover a broad range of current areas of research interest in life sciences
- Access to key strategic partners from academia and industry who are thought leaders in the field
- Access to computational resources, such as HPC/Grid clusters and network of supercomputers

EDUCATION PATHWAY



UNIQUENESS OF THE PROGRAMMES

- Low student intake for quality education
- Students from a wide variety of background may enroll for the programmes
 - Life Sciences (Biotechnology, Biology, Molecular Biology, Botany, Zoology, Physics, Chemistry, and Forensic science, among others)
 - Medicine related (Biomedicine, Biomedical, Microbiology, Biophysics, Biochemistry, Medicine, Ophthalmology, Otolaryngology, Pharmacology, Pediatric, Pathology, Nursing studies, Anaesthesia, Anatomy, Radiology, Medicine, Orthopaedic Surgery, and Psychology, among others)
 - Dentistry
 - Computing, IT, Computer Science
 - Mathematics, Statistics
 - Food Science, Nutrition,
 - Environmental Science
 - Agriculture
 - Sports Science
- The programmes provide a balance between theoretical understandings and practical skills
- A focus on exposure to research pipeline, from inception and critique of ideas to communication and defence of research findings.

BENEFITS OF THE PROGRAMMES

Graduates will be able to :

- Develop and apply innovative bioinformatics solutions to complex research problems
- Further their education in bioinformatics or any field of life sciences (basic, applied or services)
- Pursue a career in the life sciences, either in academia or industry

POSTGRADUATE PROGRAMMES OFFERED

Programme	Overarching Goals	Programme Details		
		Mode/ Duration of Study	Credit Hours	Academic Entry Requirements
Postgraduate Diploma in Bioinformatics <small>KP/JPS(N/545/7/0032)1/19</small>	Empower bioscientists (students, researchers, and IT professionals supporting biologists) with the ability to develop and/or apply innovative bioinformatics solutions to solve biological problems.	Full-time (1 year) / Part-time (3 years) By Coursework	33	Bachelor's degree in Biology, Computer Science/IT or a related field with minimum CGPA of 3.00 or other equivalent qualifications approved by the Senate of Perdana University.
Master of Science (MSc) Bioinformatics <small>KP/JPS(N/545/7/0039)6/19</small>	Strengthen and advance the research capability and scholarly practice of those who aspire to become researchers in the field of science.	Full-time (2 years) / Part-time (3 years) By Research	N.A	Bachelor of Science (BSc) with minimum CGPA of 2.75 or other equivalent qualifications approved by the Senate of Perdana University. CGPA of 2.5 and above may be considered on case by case basis. Good competency in English.
Doctor of Philosophy (PhD) <small>KP/JPS(N/720/8/0061)6/19</small>	Develop the research capability and scholarly practice of those who aspire to become researchers in the field of science.	Full-time (3 years) / Part-time (4 years) By Research	N.A	A Master's Degree (MQF level 7) accepted by Perdana University's Senate; or other qualifications equivalent to a Master's Degree (MQF level 7) that are recognized by Perdana University's Senate.

WORDS FROM THE PRESIDENT OF THE ASIA-PACIFIC BIOINFORMATICS NETWORK



“The global need for qualified bioinformaticians, particularly in the Asia-Pacific region, is growing and cannot be met unless we can provide targeted skills training in the field of bioinformatics. The postgraduate programmes in Bioinformatics offered by Perdana University are far-sighted and carefully thought out to meet these needs. I strongly recommend these programmes as they systematically guide students from a solid foundation to advanced knowledge, along with elements of critical thinking and scientific communication, both written and oral, which are key skills for students to succeed.”

Prof. Shoba Ranganathan

President of the Asia Pacific Bioinformatics Network (APBioNET; one of the largest and oldest bioinformatics organization in the region)

STUDENT TESTIMONIALS FOR THE PROGRAMMES

POSTGRADUATE DIPLOMA IN BIOINFORMATICS



"This one-year Programme was very concise and it provided me with the necessary information and skills in bioinformatics, from basics to advanced topics. The knowledgeable and friendly lecturers made the teaching and learning sessions so efficient and enjoyable. This is an awesome Programme, as it increased not only my hard skills in scientific research, but also boosted my soft skills. I feel blessed and grateful to receive tutelage from a great and supportive teaching team and be part of the pioneering batch. The Programme gave me confidence to pursue further studies in bioinformatics. I signed up for a PhD in Bioinformatics with Perdana University."

Ms. Siti Safura Jaapar

Pioneering Batch, Jan 2015 Intake Graduate.

MASTER OF SCIENCE (MSc) BIOINFORMATICS



Ms. Tan Swan

Pioneering Batch
2015 Intake Student

"The MSc in Bioinformatics Programme by Research at Perdana University is one of the best things I decided to do for myself. Besides carrying out research, I learned the fundamental elements of scientific writing, presentation and communication skills, and received great exposure to the world of research in this field. I consider myself fortunate at being able to study in a conducive and open-minded-environment that encouraged a healthy research culture. By having an awesome and supportive supervisory team who are continuously involved in my academic performance and personal development, together with fellow students who are always willing to lend a helping hand, my postgraduate journey thus far has been smooth and rewarding. I am on my way to becoming a well-positioned data science graduate, given all the skills I have acquired, which will serve as a stepping-stone in my career pathway. I am proud to be a part of the pioneering batch. What I have gained from the Programme is indeed priceless."



Ms. Hadia Syahirah Abd Raman

Pioneering Batch
2015 Intake Student

"The combination of independent and supervised research-based learning has taught me the real life experience of a researcher and trained me in becoming a good one myself. The Programme provided a very friendly and healthy environment to learn and work on one's research interest. The faculty are skilled and knowledgeable in their area of research, very helpful and exceptionally supportive. The postgraduate students form an excellent support network. All in all, it has been a very positive and rewarding experience to do my MSc by Research at Perdana University."

DOCTOR OF PHILOSOPHY (PhD)



Ms. Siti Safura Jaapar

Pioneering Batch, 2016 Intake Student

"A few months into the PhD Programme, and I have already gained exposure to many aspects of an academic research endeavor, such as how to choose a research project of scientific value, apply for ethics approval, write a grant application to source for research funding, and prepare manuscripts for scientific publication, among others. I believe that my supervisory committee's extensive experience, deep knowledge and valuable insight will be of tremendous value to my PhD research work and personal growth."

FINANCIAL AID

To attract the best students to Perdana University, we are committed to finding resources to help fund for their education.

Please continue visiting our website for updated links to financial aid resources outside Perdana University: <http://perdanauniversity.edu.my/scholarship-financial-aid/>

OUR PARTNERS



INTERNSHIP OPPORTUNITIES

PERDANA UNIVERSITY **PU-SDS-APBioNet Joint Internship Programme** **APBioNet**

We invite students to apply for the Perdana University School of Data Sciences (PU-SDS) and the Asia-Pacific Bioinformatics Network (APBioNet) joint internship programme.

The programme aims to provide a comprehensive industrial training on the use of data science in the areas of research, education, and/or services. Data science skills are in great demand both locally and worldwide. APBioNet will serve as a nexus for connection and exposure to the data science community.

During the training period, students will have the opportunity to:

- » enhance their scientific knowledge
- » gain professional experience
- » interact with faculty and graduate students
- » present their work at the end of the training

interested candidates can send their resumes to:
» bioinfo@perdanauniversity.edu.my

The banner features a background of a road leading towards a horizon with a silhouette of a person walking. Logos for Perdana University, APBioNet, and the Institute of Bioinformatics are placed at the top corners.

INTAKE IS IN PROGRESS
APPLY NOW

<http://perdanauniversity.edu.my/application/step-1/>



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Collaborative Partners:



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