

## Master of Science Program in Molecular Biotechnology and Bioinformatics (International Program)

Our Master's programme aims to produce graduates who can perform effective research that meets international standards and, at the same time, satisfies the country's needs. We prepare our students to become knowledgeable researchers with competency in conducting research in molecular biology and bioinformatics. Graduates keep themselves up to date with recent technologies and have high professional ethics and moral standards.

We are open to a wide range of research. Our current particular focuses include the following areas.

### 1) Animal Genome

- Functional genomics and integrated approaches in animals
- Biotechnology for studying immune and reproductive systems in aquatic animals
- Production of recombinant protein for agriculture, medical field and biosensor
- Animal tissue culture and genetic engineering
- Aquatic animals transplantation

### 2) Plant Genome

- Plant tissue culture and genetic engineering
- Molecular marker development for high-yield agricultural crops such as palm oil

### 3) Microbial Biotechnology

- Application of bacterial cellulose
- Bioethanol production with bacterial cellulose

### 4) Fermentation Biotechnology

- Use of fermentation by microorganisms such as bacteria and fungi to create useful products for human

### 5) Medicinal Biotechnology

- Molecular biology for infectious diseases
- Genetic susceptibility of complex diseases
- Expression of genes and proteins in cancer cells

### 6) Bioinformatics

- Protein structure and variant analysis
- Genome and transcriptome data analysis
- Bioinformatics for biomedical science

We offer scholarships for high performing students.

1. Number of students limited	10			
2. Plan of study	Plan A1 and Plan A2			
3. Instruction Administration	Monday - Friday			
4. Format of Instruction	Online / onsite			
5. Tuition fee	56,000 Baht per semester			
6. Course Structure	<b>Course Structure</b>		<b>Plan of study</b>	
			<b>Plan A1</b>	<b>Plan A2</b>
	Required subject		-	8
	Elective subject (no more than.....)		-	4
	Thesis		36	24
	<b>Total</b>		36	36

7. Qualification of applicants	<p>4.1 Applicants are required to hold a Bachelor's degree with a GPA of at least 2.50 in Science or any related field.</p> <p>4.2 Applicants must be able to provide recent an evidence of their English language skills.</p> <p>Accepted tests and minimum scores are shown below.</p> <table><tr><td>CU-TEP</td><td>50</td><td>overall</td></tr><tr><td>PSU-TEP</td><td>50</td><td>overall</td></tr><tr><td>TOEFL</td><td>450</td><td>paper-based (or equivalent)</td></tr><tr><td>IELTS</td><td>band 4.5</td><td></td></tr></table>	CU-TEP	50	overall	PSU-TEP	50	overall	TOEFL	450	paper-based (or equivalent)	IELTS	band 4.5	
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TOEFL	450	paper-based (or equivalent)											
IELTS	band 4.5												
8. Application documents required by program	<p>- A copy of Transcript</p> <p>- A copy of an English proficiency certificate</p>												
9. Contact info	<p>Assoc.Prof.Dr.Warapond Wanna, Tel: 66-74-288789, E-mail: w.wanna@yahoo.com, w.warapond@gmail.com</p> <p><a href="https://www.sci.psu.ac.th/en/program-in-physical-science-en/">https://www.sci.psu.ac.th/en/program-in-physical-science-en/</a></p>												

### Test schedule

The program will contact the applicants directly to provide the details.