



Contact Details

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Website

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<http://www.tggs.kmutnb.ac.th>

Department of Mechanical and Process Engineering  
<http://mepe.tggs.kmutnb.ac.th>

Chemical and Process Engineering Program  
<http://cpe.tggs.kmutnb.ac.th>

**TGGS International Programs:**

**Mechanical and Process Engineering Department**

**International Master Programs:**

- **Chemical and Process Engineering Program (CPE)**
- **Mechanical and Automotive Engineering Program (MAE)**  
     **Minor:** Mechanical Engineering Simulation and Design (MESD)  
     **Minor:** Automotive Engineering (AE)
- **Materials and Production Engineering Program (MPE)**

**International Doctoral Program:**

- **Mechanical Engineering Program**

**Electrical and Software Systems Engineering Department**

**International Master Program:**

- **Electrical and Information Engineering Program (EIE)**  
     **Minor:** Communications Engineering (CE)  
     **Minor:** Electrical Power and Energy Engineering (EPE)  
     **Minor:** Software Systems Engineering (SSE)

**International Doctoral Program:**

- **Electrical and Software Systems Engineering Program**

**The Sirindhorn International Thai-German  
Graduate School of Engineering (TGGS)  
King Mongkut's University of Technology North Bangkok (KMUTNB)  
1518 Pracharat 1 Road, Wongsawang, Bangsue,  
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บัณฑิตวิทยาลัยวิศวกรรมศาสตร์นานาชาติสิรินธร ไทย-เยอรมัน (TGGS)  
มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าพระนครเหนือ (มจพ.)  
1518 ถ.ประชาราษฎร์ 1 วงศ์สว่าง บางซื่อ กรุงเทพมหานคร 10800

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**Chemical and Process  
Engineering**

วิศวกรรมเคมีและกระบวนการ

Master of Engineering Program in  
Chemical and Process Engineering

- Language of Instruction: English
- Duration of the Program: Two years



## The Sirindhorn International Thai-German Graduate School of Engineering (TGGS)

The Sirindhorn International Thai-German Graduate School of Engineering (TGGS) provides industry-oriented graduate engineering education and research in Thailand based on the RWTH Aachen Engineering educational model. It is a public private partnership venture for engineering education, technology development and research collaboration.



### Course Description

The curriculum of this program is designed along the same principles as the RWTH Aachen University German version, at the same time adapted to support the industrial development in Thailand. It is meant to create Master level engineers not only with abilities in knowledge application, but also skills in research and development. This distinctive academic program is fully supported by one of the leading chemical engineering schools in Europe, the RWTH Department of Chemical Engineering (Verfahrenstechnik), in which nine research institutes are included, namely; 1) Chair of Chemical Process Engineering 2) Chair of Mechanical Process Engineering 3) Chair of Thermal Process Engineering 4) Chair of Process Systems Engineering 5) Chair of Biochemical Engineering 6) Enzyme Process Technology 7) Chair of Process Systems Engineering 8) Molecular Simulations and Transformation 9) Computational Systems Biotechnology. These Institutes have close research links to companies in the areas of petroleum, chemical, pharmaceutical, food processing and environmental technologies.



### Curriculum

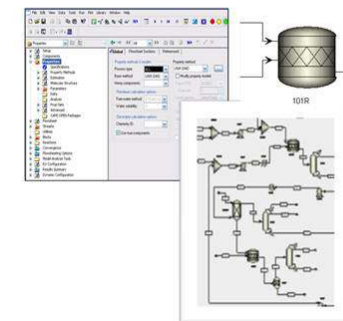
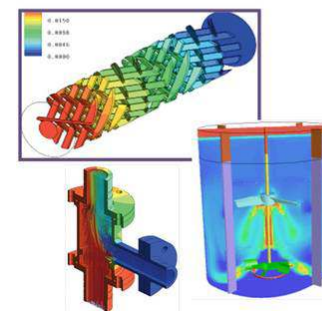
Year	Courses	Credits
1	<b>1<sup>st</sup> Semester</b>	
	■ Interfacial Transport Phenomena	3
	■ Heterogeneous Kinetic Reactions	3
	■ Chemical Process Design	3
	■ Elective Course	3
	■ Elective Course	3
	<b>2<sup>nd</sup> Semester</b>	
	■ Molecular Thermodynamics and Interfacial Properties	3
	■ Chemical Product Design	3
	■ Seminar on Modern Aspects of Chemical and Process Engineering	3
■ Elective Course	3	
■ Elective Course	3	
2	<b>3<sup>rd</sup> Semester</b>	
	■ Industrial Internship	4
	■ Master Student Project	-
<b>4<sup>th</sup> Semester</b>		
	■ Master Thesis	12
<b>Total Credits</b>		<b>46</b>

### Tuition Fees

Thai Students	60,000 Baht per semester
International Students	85,000 Baht per semester

### Scholarships

For qualified students who need financial aids, the TGGS coordinators and leadership will make a serious effort to organize scholarships from industries or government organizations.



### Entrance Requirements

Bachelor Degree in Chemical Engineering awarded by an internationally recognized university with a minimum GPA of 3.0 (or 2.75 plus adequate experience), good reading, writing and communication skills in English. To obtain the TGGS M.Eng. Degree, TOEFL 525+ or equivalent has to be passed within 2 years following registration.



### Prospects

During their terms of study at TGGS, outstanding students may have the opportunity to do their internships and theses in Germany.

Graduates will be of great interest to work in a variety of areas in Chemical and Process Engineering industries, such as food industries, chemical production plants, pharmaceutical industries, petroleum and petrochemical industries and many others. This includes work as a researcher in both governmental and private organizations. For those who want to continue their studies abroad, it is very likely to be accepted by leading international universities, particularly those in Germany.