

AGREEMENT ON DUAL MASTER DEGREE PROGRAM

between

King Mongkut's University of Technology Thonburi

and

National Taipei University of Technology

This Agreement, referred to as Credit Transfer Agreement, specifies the development and execution of a collaborative program as mutually agreed upon by the King Mongkut's University of Technology Thonburi (KMUTT) and National Taipei University of Technology (TAIPEI TECH). The program allows for credit transfers between KMUTT and TAIPEI TECH contributing to the award of the **Master of Science Degree** in Department of Chemical Engineering and Biotechnology from TAIPEI TECH and the **Master of Engineering Degree** in Chemical Engineering from KMUTT.

1. The Parties

1.1 KMUTT is represented by Dr. Suvit Tia, the President of KMUTT.

1.2 National Taipei University of Technology (TAIPEI TECH) is represented by Dr. Sea-fue Wang, the President of TAIPEI TECH.

1.3 The Department of Chemical Engineering at KMUTT is hereinafter referred to as **KCE**, while The Department of Chemical Engineering and Biotechnology at TAIPEI TECH is hereinafter referred to as **TCEB**.

2. Program Overview & Requirements for Graduation (Details are given in the ANNEX A.)

2.1 KMUTT Master of Engineering Degree requires a minimum of **37 credits**. To fulfill the graduation requirement, TAIPEI TECH students have to earn at least **16 credits** at KMUTT. Among the 16 credits, **Special Research Project (6 credits) and Intensive Industrial Research Projects (6 credits)** are mandatory. Besides the credits, English proficiency at the graduate level is required, which is 5.0 for TETET (or equivalent).

2.2 TAIPEI TECH Master of Science Degree requires a minimum of **32 credits**. To fulfill the graduation requirement, KMUTT students have to earn **at least 1/3 of the graduation credits (11 credits) at TAIPEI TECH**. Among the 11 credits, **Master Thesis (6 credits) and other required courses** are mandatory. Besides the credits, English proficiency at the graduate level is required, which is 550 for TOEIC (or equivalent).

2.3 Students from both KCE and TCEB need to complete one thesis at both sides and complete 2 semesters of academic study at their home university and 2 semesters at the partner university, which need not be consecutive. Oral thesis defense will be held through Skype, Zoom, or MS Teams (or any

kinds of online meeting). The whole process should be arranged according to each university's regulations, e.g. the composition of oral defense committee members, etc.

2.4 Credits earned at KCE may be transferred toward the Master of Science degree at TAIPEI TECH, only when the following two conditions are met. **The course grade must be at least B and there is a corresponding course at TCEB.**

2.5 Credits earned at TCEB may be transferred toward the Master of Engineering degree at KMUTT only when the following two conditions are met. **The course grade must be at least 70 and there is a corresponding course at KCE.**

2.6 Credits toward the Master of Engineering degree at KCE are valid only if a student is officially matriculated at KMUTT during the course of study. Likewise, credits toward the Master of Science degree at TCEB are valid only if a student is officially matriculated at TAIPEI TECH during the course of study. Students will be awarded the degree from both Universities if the credits earned at TCEB or KCE are recognized and successfully transferred back to their home universities in accordance with relevant regulations.

3. Admission

3.1 Students from both KCE and TCEB are allowed to apply to the dual-degree program during their 1st year of study.

3.2 Students from both KCE and TCEB should obtain a minimum **GPA 3.0** in their current semester/all semesters transcript (or equivalent). KCE and TCEB will recommend qualified candidates to join this program.

4. Responsibilities of the Parties

4.1 Both universities are responsible for re-admitting returning students who cannot, for academic or other reasons, continue their study at the partner university.

4.2 After students returned to their home country and having completed degree requirements, both universities must assess whether the student successfully completed courses that comply with credit transfer regulations, so that valid credits can count toward the eventual degree completion.

4.3 If students return to their home country without fulfilling all the degree requirements, the home university is still obliged to assess whether the student successfully completed courses which comply with credit transfer regulations. Valid credits can still count toward the eventual degree completion.

5. Finances

5.1 Students who enroll in this program will be charged tuition fees only from their own university.

5.2 Both parties reserve the right to change their tuition and fees for any component of the program. Students already progressing through the program may experience a change of fees in line with changes affecting all other students at their respective universities.

5.3 Students are responsible for their own cost for accommodations, meal costs, travel, health and accident insurance, books and supplies, and incidental expenses.

6. Intellectual Property

The parties will share the ownership of the academic publications, research, articles (intellectual property) which have been produced based on the contribution from both sides.

7. Duration, Amendment & Termination

7.1 This agreement shall be operational upon signing and will have a duration of 5 years.

7.2 This Agreement may be varied or modified by mutual consent in writing.

7.3 Either party will be entitled at any time, to terminate the Program by giving written notice six (6) months beforehand to the other party. Such termination will not adversely affect any students currently enrolled at any stage of the Dual Master Degree Program. Each party will ensure that adequate arrangements are made to fulfill all commitments before the Program is terminated.

8. Contact Details

King Mongkut's University of Technology Thonburi

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National Taipei University of Technology

Prof. Jyh-Cheng Jeng

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Dean, Office of International Office

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Signature Page

In witness whereof, this agreement was executed on the date written below.

Signed for and on behalf of the King Mongkut's University of Technology Thonburi	Signed for and on behalf of the National Taipei University of Technology
Dr. Suvit Tia President, King Mongkut's University of Technology Thonburi 	Dr. Sea-fue Wang President, National Taipei University of Technology 
Date:	Date:
Dr. Chai Jaturapitakkul Dean, Faculty of Engineering  (Witness)	Dr. Yu-Chi Sung Dean, College of Engineering  (Witness)
Date:	Date:
Dr. Piyabutr Wanichpongpan Chair, Department of Chemical Engineering  (Witness)	Dr. Jyh-Cheng Jeng Chair, Department of Chemical Engineering and Biotechnology  (Witness)
Date:	Date:
Dr. Pornapit Darasawang Vice President, International Affairs Office  (Witness)	Dr. Ho-Chiao Chuang Dean, Office of International Affairs  (Witness)
Date:	Date:

ANNEX A

KMUTT Program and Corresponding TAIPEI TECH Program for the Dual Award Master Program

1. Course List

TAIPEI TECH		KMUTT
Choose 2	7305001 Advanced Fluid Mechanics, 3 credits (Fall, Required)	CHE 610 Intermediate Transport Phenomena, 3 credits (Spring)
	7305002 Advanced Heat Transfer, 3 credits (Fall, Required)	
	7305003 Advanced Chemical Engineering Thermodynamics, 3 credits (Fall, Required)	CHE 644 Applied Chemical Engineering Thermodynamics, 3 credits (Fall)
	7305013 Advanced Mass Transfer, 3 credits (Spring, Required)	
	7305014 Advanced Chemical Reaction Engineering, 3 credits (Spring, Required)	CHE 642 Chemical Reaction Engineering, 3 credits (Spring)
7306002 Thesis, 6 credits (Fall + Spring, Required)	CHE 690 Special Research Project, 6 credits (Required)	
7306006 Seminar, 2 Credits (Fall + Spring, Required)	CHE 684 Graduate Seminar (1 credit)	
7305055 Graduate On-Site Research, 3 credits (Fall, Elective)	CHE 691 Intensive Industrial Research Project I, 3 credits (Required)	
6805067 Graduate On-Site Research, 3 credits (Spring, Elective)	CHE 692 Intensive Industrial Research Project II, 3 credits (Required)	
3204012 Process Design, 3 credits (Fall, Required)	CHE 654 Computer Application for Chemical Engineering Practice, 3 credits (Required)	
3201005 Industrial Safety and Hygiene, 2 credits (Fall, Required)	CHE 655 Fundamental of Chemical Engineering Practice, 3 credits (Required)	
3201018 Chemical practice, 2 credits (Spring, Required)		
7305063 Information Technology English, 3 credits (Spring, Elective) Or	LNG 601 Foundation English for International Programs, 3 credits (Required)	
6805056 English Thesis Writing, 3 credits (Fall, Required)		
7305006 Process Simulation, 3 credits (Fall, Elective)	CHE 656 Process Analysis and Modeling I, 3 credits (Fall)	
7305065 Petroleum Refinery Engineering, 3 credits (Fall, Elective)	CHE 643 Petroleum and Petrochemical Process Chemistry, 3 credits (Fall)	
7305008 Advanced Process Control, 3 credits (Spring, Elective)	CHE 658 Fundamentals of Process Dynamics and Control, 2 credits (Fall)	
7305071 Process Optimization, 3 credits (Spring, Elective)	CHE 659 Optimization of Chemical Processes, 2 credits (Spring)	

- **CHE 691 / CHE 692 can be recognized as either one of the Graduate On-Site Research courses**
- **CHE 658 + CHE 659 can be recognized as either Advanced Process Control or Process Optimization**

*** Other courses**

KMUTT:

CHE 651 Mathematical Analysis for Chemical Engineering, 3 credits (Fall)

CHE 657 Process Analysis and Modeling II, 3 credits (Spring)

CHE 670 Business Management for Chemical Industry, 3 credits (Spring)