



AGREEMENT ON DUAL AWARD MASTER'S DEGREE PROGRAM
between
UNIVERSITY OF CINCINNATI
and
NATIONAL TAIPEI UNIVERSITY OF TECHNOLOGY

Purpose

This Agreement records the understanding between the University of Cincinnati College of Engineering & Applied Science (CEAS) and National Taipei University of Technology (TAIPEI TECH) College of Mechanical and Electrical Engineering (CMEE), collectively, the Parties, for the development and delivery of a collaborative (hereafter referred to as an "articulation agreement") program allowing for credit transfers between UC and TAIPEI TECH contributing to the award of the Master of Science (MS) degree from TAIPEI TECHCMEE and the Master of Engineering (MEng) degree from CEAS.

The Parties agree on the terms and conditions stated below:

1. The Parties

1.1 The University of Cincinnati (UC), College of Engineering & Applied Science, hereinafter referred to as CEAS.

1.2 National Taipei University of Technology (TAIPEI TECH) College of Mechanical and Electrical Engineering (CMEE) hereinafter referred to as CMEE.

2. Objectives

2.1 The primary objective of this Articulation Agreement is to develop programs that benefit both CMEE and CEAS. The Dual Award Master's Program will provide CMEE students the opportunity to earn both a Master of Science degree from TAIPEI TECH CMEE and the Master of Engineering degree, at the University of Cincinnati CEAS.

Development of this program is anticipated to facilitate further collaborations between TAIPEI TECH and UC.

2.2 The Parties seek to establish a Dual Award Master's Program whereby students from CMEE will be admitted to the graduate program both at CMEE and in CEAS.

2.3 Dual Award Master's Programs will be established as described in Attachment A. By mutual agreement of the Parties additional disciplines may be added in the future without the creation of a new agreement.

3. Program Overview

3.1 Dual Award Master's Program

UC's Master of Engineering degree requires a minimum of 30 credit hours of course work (including capstone described below); a thesis is not required for the degree. TAIPEI TECH's Master of Science degree requires a minimum of 32 credits to fulfill the graduation requirement, including 6 credits for a mandatory master thesis and 4 credits of seminar; a thesis is required. Both programs are designed to provide students with advanced knowledge and experience in their fields of interest along with courses covering new developments in the respective disciplines.

Capstone Project – A key component of the Master of Engineering program is a capstone project that is a three credit hour course. The capstone project can be a written paper, project with an advisor, or a curricular practical training (internship) in the student's field of study. The project can be performed at the University (UC or TAIPEI TECH), business workplace, industry, or a government institution. The capstone project provides a mechanism to demonstrate a synthesis of knowledge and application of concepts to a specific problem. Faculty or professionals in the workplace will oversee the capstone experience. The capstone project will include a written report and a presentation.

For the award of the Master's degree from CEAS, up to 15 credit hours of coursework from the MS at CMEE can be credit-transferred toward the MEng degree at CEAS. Thesis hours performed at CMEE do not count toward the MEng at CEAS, only coursework as denoted in Attachment A. Most students in the concurrent enrollment program will take 5 subjects (15 credits) from CMEE and 5 subjects including the capstone (15 credits) from CEAS. In order for credits from CMEE to count towards the Master of Engineering degree at CEAS, students originally registered at CMEE must earn a B grade or above in a subject that has an appropriate CEAS counterpart. These subjects will be agreed upon by both universities. Similarly, a maximum of 15 credits earned from CEAS at a B grade or above can be counted towards the MS graduation requirements at CMEE.

The structure of the program is such that typical students (originally registered at TAIPEI TECH) will complete their first, second and third semester at TAIPEI TECH to earn 15 or more credits from TAIPEI TECH (with each of the 5 subjects achieving grade B or above) as follows:

Fall Semester 1 at TAIPEI TECH– 12 credits coursework + 2 credits seminar;

Spring Semester 2 at TAIPEI TECH– thesis + 2 credits seminar;

Fall Semester 3 at TAIPEI TECH– thesis + coursework;
Students then enroll in UC courses for 15 or more credit hours.
Spring Semester 4 at UC – 12 credits of coursework plus 3 credits of capstone
Summer Semester 5 at UC (optional) – some students may delay completion of a capstone project to the second semester at UC in order to have additional time.
Students who wish to do an internship in the US will need to register for 9 additional credit hours to meet requirements of the student visa.

Upon successful completion students transfer credits back to TAIPEI TECH to achieve graduating requirements for TAIPEI TECH MS at end of semester and graduate UC MEng at end of spring or summer semester.

Students will be awarded the Degree of Master of Engineering from UC if the total recognized credits earned from CMEE and CEAS are no less than 30 credits. The minimum of 15 credits of the MEng degree at CEAS must be completed as a matriculated CEAS student. These students can also be awarded the MS degree from TAIPEI TECH once they satisfy the degree award requirements at TAIPEI TECH if their subjects studied at CEAS are credit-transferred back to TAIPEI TECH.

4. Admission Standards

4.1 Dual Award Master's Program

Students must have a bachelor's degree in a corresponding program recognized as high quality by UC, and graduate with a minimum GPA of 3.0 or QPA of 75 or equivalent.

English proficiency is required of all applicants whose native language is not English. Students can demonstrate proficiency in a number of ways at the graduate level. Most students fulfill the English requirement by taking the Test of English as a Foreign Language (TOEFL), the International English Testing System (IELTS), or the Pearson Test of English (PTE). CEAS has established the following minimum requirements: for IELTS an overall band score of 6.5, for Pearson a score of 59 is sufficient, for the (internet-based) TOEFL a score of 85 is sufficient.

Students will apply to both the CMEE Master of Engineering program and the CEAS Master of Engineering program. After completing the first semester at CMEE, administrators at CMEE will screen individuals interested in the dual award program. Those individuals who demonstrate appropriate academic potential (primarily appropriate grades in relevant coursework, English proficiency, and interest in the US education system) will be recommended for continuing in the dual award program. These students do not need to submit GRE scores for admission to the CEAS Master of Engineering program.

While studying at both Universities, students will be required to comply with all the regulations and requirements of each institution and be subject to any authorized changes to those regulations such as fees adjustments, etc. Notwithstanding this provision, both UC CEAS and TAIPEI TECH CMEE will recognize their continuing

commitment to students within the joint program from their time of admission to the partner institution.

Students participating in the Program are responsible for complying with all visa requirements and regulations of the hosting country; while the host Institution may assist with the acquisition of visas, it bears no responsibility for those who fail to maintain compliance with visa laws and regulations.

5. Responsibilities of the Parties

5. National Taipei University of Technology (TAIPEI TECH) College of Mechanical and Electrical Engineering (CMEE) agrees to the following responsibilities and obligations:

5.1.1 To ensure program approval from the relevant decision-making bodies in TAIPEI TECH.

5.1.2 To promote the Programs and recruit students.

5.1.3 To collaborate with UC CEAS in selecting potential students for the Dual Award Master's Program.

5.1.4 CMEE shall forward completed transfer application forms to the Admissions Office of the University of Cincinnati by the posted application deadlines.

5.1.5 To provide students with English language training, tutorial, and courses taught in English at TAIPEI TECH to ensure student quality.

5.1.6 CMEE is responsible for accepting returning students who cannot, for academic or other reasons, continue their study at CEAS.

5.1.7 For students who return to their country having completed degree requirements at CEAS, CMEE will assess successfully completed CEAS courses for possible credit transfer, so that these courses count toward the eventual degree completion at the partner institution.

5.1.8 For students who return to their country having not completed degree requirements at CEAS, CMEE will assess successfully completed CEAS courses for possible credit transfer, so that these courses count toward the eventual degree completion at CMEE.

5.2 CEAS agrees to the following responsibilities and obligations:

5.2.1 To ensure program approval from the relevant decision-making bodies in UC.

5.2.2 To provide recruiting materials, to promote the Programs via live or web-based presentations and participate in recruiting activities as mutually agreed upon.

5.2.3 To provide instruction to TAIPEI TECH students regarding the documents necessary to be issued a certificate of eligibility from UC for a student visa and to provide guidance on applying for a student visa at the U.S. Consulate/Embassy.

5.2.4 To provide students with information about accommodation on campus and in the area. Note that information that is provided is not an endorsement of the housing.

5.2.5 CEAS will accept credits for successfully completed courses from CMEE as described in Attachment A for credit transfer so that these courses count toward the eventual degree completion at CEAS.

6. Finances

6.1 Unless otherwise specified and agreed in written form by the Parties, each Party will meet the financial costs associated with delivering the academic components of the Programs in their respective countries.

6.2 Students in the Dual Award Master's Program will be charged TAIPEI TECH tuition and fees while they are at TAIPEI TECH and registered for courses there and UC CEAS out-of-state tuition and fees while they are at UC and registered for courses there. While registered as full-time students at UC, students in the dual award master's program will be eligible for the same scholarships as traditional Master of Engineering students.

6.3 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.

6.4 TAIPEI TECH students, while at UC, are responsible for tuition and fees, room and meal costs, travel, health and accident insurance, books and supplies, and incidental expenses.

6.5. All students while at UC must purchase UC health insurance. The cost of that coverage is added to the student's bill.

6.6. For students who apply for on-campus housing, the UC Office of Housing and Food Services requires payment of a deposit at the time a student applies for housing and a dining plan. Application for housing and dining and payment of the deposit should take place well in advance of arrival at UC. The cost of housing and dining plan depends upon options selected by each student. Payment of the deposit can be made by credit card or by check. The UC Office of Housing and Food Services will submit an invoice to each student prior to the start of the quarter. Payment is due in full when classes begin.

Payments for housing and dining are to be made directly to the University of Cincinnati. On-campus housing cannot be guaranteed. Early application is critical.

7. Term, Variation, Numbers, and Termination

7.1 This Agreement will be effective for a period of 5 years from the date of signing.

7.2 This Agreement may be varied or modified by mutual written agreement.

7.2.1 **Amendment.** The written provisions contained in this Agreement constitute the sole and entire agreement made between the Institutions and supersedes all prior or contemporaneous agreements, discussions, or representations, oral or written, with respect to the subject matter hereof. Any amendments or renewals to this Agreement shall not be valid unless made in writing and signed by both Institutions.

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

8. General Provisions

8.1 **Force Majeure.** An Institution shall not be responsible for failure to perform any of the obligations imposed by this Agreement, provided such failure shall be occasioned by fire, flood, explosion, lightning, windstorm, earthquake, subsidence of soil, failure or destruction, in whole or in part, of machinery or equipment or failure of supply of materials, discontinuity in the supply of power, governmental interference, civil commotion, riot, war, strikes, labor disturbance, transportation difficulties, labor shortage, or any other cause beyond the reasonable control of such Institution.

8.2 **Agency.** The Institutions agree that, during the term of this Agreement, the Institutions are engaged with each other as independent contractors and not as a joint venture, partnership, trust, association, corporation, or formal business organization of any kind. Except as expressly provided herein, neither Institution shall have the right to bind or obligate the other Institution in any manner without the other Institution's prior written consent.

8.3 **Export Control Laws and Regulations.** The parties agree to comply with all applicable U.S. export and import control laws and regulations in the conduct of the activities conducted under this Agreement and each party agrees to obtain export licenses or other export authorization, as may be required, prior to exporting any controlled items or technology. The parties also agree to comply with the applicable import and export laws and regulations of Taiwan (ROC).

8.4 Language. If this agreement is translated into a language other than the English language, the document in the English language shall be the official, binding version.

8.5 FERPA / Education Records. The Parties agree and acknowledge that in the course of the Agreement they will have access to student education records that are subject to the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. 1232g, et seq. and the regulations promulgated there under. The Parties further agree such information is considered confidential and is therefore protected under FERPA, and that they shall not use education records for any purpose other than in the performance of this Agreement. Except as required by law, the Parties shall not disclose or share education records with any third party unless permitted by the terms of the Agreement or to subcontractors who have agreed to maintain the confidentiality of the education records. The Parties further agree that for students in the Program, the coordinators of each academic institution, shall be considered "school officials" under FERPA.

8.6 Non-Discrimination. Both Parties subscribe to a policy of equal opportunity and do not discriminate on the basis of race, sex, age, ethnicity, religion or national origin. The parties shall abide by these principles in the administration of this agreement, and neither institution shall impose criteria for exchange of scholars or students, which would violate the principles of non-discrimination.

9. Program Coordinators

Each institution will designate an office and an individual within that office (the "Coordinator") to oversee the activity. Coordinators should communicate regularly with each other.

Coordinators are responsible for tracking student numbers, suggesting needed modifications, and handling problems. Coordinators will provide their counterparts with up-to-date information on their own institution and its programs, including any special requirements they may have for exchange students.

Coordinators may assign or delegate aspects of the program to other people, such as faculty advisers. Coordinators are responsible for ensuring that these other individuals perform in a satisfactory way.

The program coordinators are as follows:

University of Cincinnati

Mr. Eugene Rutz
Director of Master of Engineering
Programs
College of Engineering & Applied Science
University of Cincinnati
Email: eugene.rutz@uc.edu

Julie Muenchen
Program Director
University of Cincinnati
Email: Julie.Muenchen@uc.edu

**National Taipei University of
Technology**

Dr. Che-Hua Yang, Dean
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Dr. Shiao-Shing Chen, Dean
Office of International Affairs,
National Taipei University of Technology
Tel: +886-2-27712171 Ext 6501
Email: f10919@ntut.edu.tw

10. Intellectual Property (if applicable)

10.1 Each party will retain individual ownership of all existing intellectual property rights in any contribution made by that party to the development of a program, or which it discloses to the other party in the course of performing its responsibilities under this Agreement.

10.2 Unless otherwise agreed, the parties shall jointly own all intellectual property jointly developed in relation to any program, with each party having any unrestricted license to use this jointly owned intellectual property during or after the term of this Agreement.

11. Dispute Resolution

Both parties shall endeavor to resolve any issue arising as to the interpretation of any provision of this Agreement, or in respect to any of the responsibilities of either party. If the dispute or difference is not settled by agreement within 30 working days of the dispute arising, then, unless agreed otherwise, it shall be referred to a qualified mediator agreed by the parties. If the parties fail to resolve any dispute through amicable discussion, negotiation, or mediation, either party may submit such dispute to a court of competent jurisdiction.

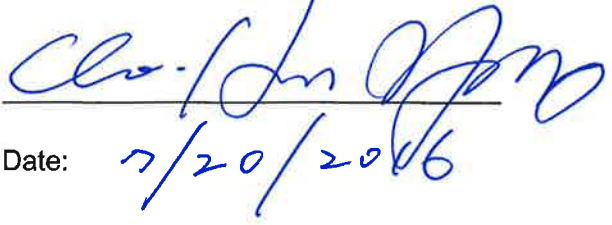
Signature Page

Final acceptance of this Agreement is subject to ratification by the Governing Bodies of the Parties.

IN WITNESS WHEREOF, this Agreement was executed on the date written below.

Dr. Teik C. Lim
Dean, College of Engineering & Applied
Science
University of Cincinnati, U.S.A.

Name
Dr. Che-Hua Yang, Dean
College of Mechanical and Electrical
Engineering
National Taipei University of Technology

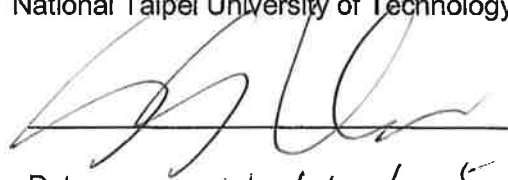
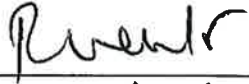


Date: 4-14-2016

Date: 7/20/2016

Dr. Raj Mehta,
Vice Provost for International Affairs
University of Cincinnati

Dr. Shiao-Shing Chen, Dean
Office of International Affairs,
National Taipei University of Technology



Date: 4/15/2016

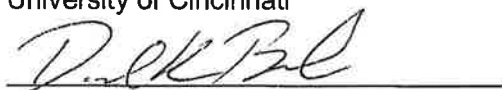
Date: 2016/10/05

Contracting Officer
Contracting Officer

Coordinator,

University of Cincinnati

National Taipei University of Technology



Date: 4/22/16

Date: 7/20/2016

Daniel R. Beerck
Associate General Counsel
Assistant Contracting Officer

ATTACHMENT A

UC CEAS Programs and Corresponding TAIPEI TECH Programs for the Dual Award Master's Program

The structure of the CEAS Master of Engineering Program is:

Core Courses

Track (Discipline) Courses

Elective Courses

Capstone Course

Core courses are common to all tracks (disciplines) and provide professional skills that facilitate professional success. Students are required to take 2 core courses: 1) a course related to project, task or business management and 2) another course related to interpersonal effectiveness. These courses can be taken at either university.

Track courses provide graduate-level education and skills associated with the student's discipline (e.g. electrical engineering). It is expected that some track courses will be completed at TAIPEI TECH and some track courses will be completed at CEAS. So as to accommodate broad career goals, students have significant flexibility in which track courses they complete. All track courses are required to meet degree completion requirements at both universities.

Elective courses can be taken from the discipline or from a complimentary discipline (another branch of engineering, mathematics, science, and in some instances business). So as to accommodate broad career goals, students have significant flexibility in which elective courses they complete. All elective courses are required to meet degree completion requirements at both universities.

Students must register for the capstone course while matriculated in the CEAS program. Through this course students demonstrate a synthesis of knowledge from the program and the ability to apply engineering analysis to a topic.

Graduate program faculty at CEAS are required to approve credit for courses taken at TAIPEI TECH.

Graduate program faculty at TAIPEI TECH are required to approve credit for courses taken at CEAS.

The following tables describe courses that can be taken to satisfy both degrees. Other courses as approved by CEAS and TAIPEI TECH may also satisfy program requirements. All TAIPEI TECH courses are 3 credits: UC courses are 3 credits except as noted. Courses needed to satisfy the thesis requirement at TAIPEI TECH are not included in this list since these courses cannot be used as credits toward the UC degree.

Courses for the Core Category

From UC Courses:

Interpersonal Effectiveness (1 required)

ENGR 6002 Management of Professionals
ENGR 6050 Fundamentals of Leadership
ENGR 6010 Effectiveness in Technical Organizations

Project, Task or Business Management (1 required)

ENGR 6014 Engineering Project Management
AEEM 6067 Entrepreneurship and Tech Law
AEEM 6099 Systems Engineering & Analysis
OM 7011 Management of Operations (2 credits)
MGMT 7015 Business Ethics (2 credits)

From TAIPEI TECH Courses:

212778 Innovation Design and Business Management
5807045 Product Service System Design

Mechanical Engineering Track (track and elective courses)

From UC Courses:

MECH6011 Computational Design
MECH6023 CAD for Manufacturing
MECH6032 Robot Control and Design
MECH6035 Intelligent Systems Theory
MECH6036 Robot Vision
MECH6051 Safety Eng & Product Liability
MECH6052 System Safety
MECH6062 Experimental Vibrations
MECH6063 Experimental Analysis of Rotating Systems
MECH6073 Intro to E-Manufacturing
MECH6074 Quality Control
MECH6076 Supply Chain Modeling and Optimization
MECH6094 Fundamentals & Applications of Solar Energy
MECH6095 Thermal Energy Storage
MECH6096 Internal Combustion Engines
MECH7052 Finite Element Method
MECH7055 Fracture Mechanics
MECH7064 Advanced System Dynamics
MECH7070 Advanced Manufacturing Processes
MECH7072 Precision engineering and Computational metrology
MECH7091 Convection Heat Transfer
MECH7094 Boling Heat Transfer and Two-Phase Flow

From TAIPEI TECH Courses:

- 213082 Clean Energy
- 206881 Theory and Applications of Ultrasonics
- 213050 Precision Machinery Dynamics and Control
- 212996 Opto-electronic Methods in Precision Measurement
- 213184 Mechanical Behaviors of Material
- 206895 Mechanical Vibrations
- 206599 Kinematic Synthesis of Mechanisms
- 213049 Joining processes
- 206907 Reverse Engineering Theory and Practice
- 206909 Special Topic on e-Manufacturing
- 213267 Intelligent Manufacturing Systems
- 213041 Lean Manufacturing Systems
- 213183 Nanostructured Materials Processing
- 213034 Computational Dynamics
- 206586 MEMS Technology and Applications
- 213038 Micro Electro-mechanical System
- 213050 Precision Machinery Dynamics and Control
- 206598 Finite Element Analysis
- 206599 Kinematic Synthesis of Mechanisms

Electives may be taken from the lists above or from other engineering disciplines as approved by faculty at TAIPEI TECH and UC.