ARTICULATION AGREEMENT

between

The Grove School of Engineering
of
The City College
of
The City University of New York

(Earth System Science & Environmental Engineering Program)

and

Instituto Tecnológico de Santo Domingo, Dominican Republic

April 19, 2013

This agreement is effective upon signature

Instituto Tecnológico de Santo Domingo

Dr. Rolando M. Guzmán
Chancellor

Ing. Carlos Cordero
Dean
School of Engineering

Date:

The City College of New York

Dr. Maurizio Trevisan
Interim Provost

Dr. Joseph Barba
Dean
Grove School of Engineering

Dr. Laurent Mars
Assistant Dean for Undergraduate Affairs (Acting)
Grove School of Engineering

Dr. Fred Moshary
Director
Earth System Science &
Environmental Engineering Program

Date: May 1st, 2013

A. INTRODUCTION

The Instituto Tecnológico de Santo Domingo (INTEC) and the Grove School of Engineering (GSoE) of The City College of New York (CCNY) agree to establish a collaborative educational program in the major of Earth System Science & Environmental Engineering (ESE). Participating students will study mathematics and science subjects, along with pre-engineering courses and common engineering and computer science courses at INTEC. Upon meeting admission requirements stated below, students will enter GSoE to complete the engineering major degree requirements.

Such a cooperative program, known as the CCNY+INTEC Articulation Agreement (CIAA), is being created with the dual objective of: (a) providing students at INTEC with the opportunity to study majors that are not available to them at their home institution, and (b) providing CCNY with a direct linkage to the Dominican Community in New York City and its home country of Dominican Republic. Students whose cultural origins are tied to the Dominican Republic represent a significant portion of the academic community of CCNY.

B. ADMISSION AND TRANSFER PROCEDURES

Counseling, admission, and the transfer of students in this cooperative program will be through the application of the following procedures and policies. Failure to comply with any of the following procedures or policies may result in denial of admission to CCNY as a CIAA program participant.

1. Results from aptitude and achievement tests, records of scholastic achievement, and other pertinent information will be exchanged between institutions to aid both in guiding and in counseling prospective and admitted students. CCNY will provide INTEC with copies of curriculum planning guides used by advisors at CCNY for the ESE major.

2. INTEC is responsible for informing students in the CIAA program of the requirements for admission to CCNY's GSoE, as described in this document, and is encouraged to provide each student with a copy of this agreement. Students should also be made aware of the courses offered by INTEC that can be used to meet degree requirements for the ESE major.

3. Each September, the CIAA program coordinator at INTEC shall provide the GSoE Office of Undergraduate Affairs with a list of INTEC students who have indicated their desire to participate in the CIAA program. INTEC will also provide copies of students' translated transcripts, overall GPA on a 4.0 scale, and Math/Science GPA on a 4.0 scale.

4. INTEC students become eligible for transfer to the ESE program as soon as they have met the following requirements for admission to CCNY's GSoE:

    a. *Satisfies all of the GSOE freshman admission requirements;*
    b. *Achieved a minimum overall GPA of 2.7 in his/her college courses;*

c. *Achieved a minimum 2.5 GPA in college math and science courses, with none of these grades below C;*
d. *Passed calculus;*
e. *Demonstrated proficiency, evidenced by his/her transcript, in math and science; and*
f. *Completed 24 or more college-level credits.*

CCNY requires **two** semesters of calculus (Math 20100 & Math 20200). The math and science GPA is calculated using **physics, chemistry and biology courses, and math courses at the precalculus level and above**; and proficiency in science must be demonstrated by completion of a **calculus-based general physics** course, which at CCNY is Physics 20700.

The cumulative GPA used to determine eligibility for an engineering major will be calculated by the method used at CCNY. INTEC may require higher academic standards for transfer.

5. Students should submit an online application to the CUNY Admission Office (www.cuny.edu) by the admission deadline. Application deadline for the Fall semester at CCNY is February 1st. Students may transfer only during the Fall semester.

6. The CIAA program coordinator at INTEC shall provide the GSoE's Office of Undergraduate Affairs with the following documents for each student who has applied to CCNY:
   a. A copy of the official INTEC transcript, showing all grades earned.
   b. List of courses in progress if not shown on transcript

C. AGREEMENT

a. Each school agrees to work together to develop and maintain an articulation program that will produce highly skilled engineers.

b. The curriculum of the CIAA program will be assessed and evaluated by the two schools at least once every 18 months with the goal of keeping the program in line with the accreditation requirements and mission of each individual school.

c. Each school will be responsible for notifying the other of any curriculum changes – for example the removal or addition of courses and requisites - that may impact the CIAA program.

d. Should a change in a school's mission or accreditation requirements cause it to change its curriculum such that it conflicts with the curriculum of the CIAA program and a mutual agreement cannot be made between the two schools, the last version of the curriculum of the CIAA program will be honored for a period of 18 months after which time the agreement will become null.

e. Both colleges may publicize the agreement in the appropriate college publications and bulletins.

f. Neither party may change this agreement unilaterally. Proposed changes in policies or curricula by either party must be communicated in writing to the other party. Any changes must be signed, dated, and attached to this agreement. Either party may independently cancel this agreement by notifying the other party no less than one academic year before the intended date of cancellation.

D. CURRICULUM

Credits transferred from INTEC 64
Credits earned at CCNY 63
Total Credits toward degree 127

Table 1. Core and major-specific courses to be taken at INTEC by students wishing to participate in the CIAA Program.

	INTEC		CCNY	
INTEC	Liberal Arts (from Table 2)	4	100-Level or above Liberal Arts	3
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	Liberal Arts (from Table 2)	4	100-Level or above Liberal Arts	3
	Liberal Arts (from Table 2)	4	100-Level or above Liberal Arts	3
	Liberal Arts (from Table 2)	4	200-Level Liberal Arts	3
	Liberal Arts (from Table 2)	4	200-Level Liberal Arts	3
	AHH-202: Rhetoric and Composition	4	ENGL 11000: Freshman Composition	3
	CBM-102: Differential Calculus	5	MATH 20100: Calculus I	3
	CBM-201: Integral Calculus	5	MATH 20200: Calculus II	3
	CBM-202: Vector Calculus	5	MATH 20300: Calculus III	4
	CBM-203: Differential Equations	5	MATH 39100: Differential Equations	3
	CBQ-201: Chemistry I	5	CHEM 10301: General Chemistry I	4
	CBQ-202: Chemistry II	5	CHEM 10401: General Chemistry II	4
	CBB-201: Biology I	4	BIO 10100: Foundation of Bio I	4
	CBF-201: Physics I	5	PHYS 20700: General Physics I	4
	CBF-202+203: Physics II+III	10	PHYS 20800: General Physics II	4
	INS-204: Programming Fundamentals	5	CSC 10200: Introduction to Computing	3
	ING-2XX: Earth System Science and Engr	4	ENGR 10610: Intro. to Earth System Sci & Engr*	4
	INE-301: Electrical Circuits I	5	ENGR 20400: Electrical Circuits	3
			Credits transferred from INTEC	**64**

* Course has not yet been fully articulated by CCNY faculty

Table 2. List of approved liberal arts courses. Students must take six approved courses (18 credits) of which at least two (6 credits) must be at the 20000 level or higher.

Liberal Arts Electives - INTEC		Liberal Arts Electives - CCNY	
AHH-203: Effective Speech	4	SPCH 11100: Effective Speaking	3
CSS-101: Human Being in Society	4	SOC 10500: Introduction to Sociology	3
CGS-201: Hist., Civ. & Cultures	4	WCIV 10200: 1500 to the Present	3
AHA-201: Art Appreciation I	4	ART 21062: History of Art I	3
SMH-101: Dominican Migration	4	SOC 29000: Immigration	3
CGS-204: Social Anthropology	4	ANTH 20100: Cross-cultural Perspectives	3
AHA-202: Art Appreciation II	4	ART 21064: History of Art II	3

Table 3. Recommended sequence of courses to be taken at CCNY. Adherence to this sequence will enable students to complete their degree requirements within 2 years of transferring to CCNY. Other sequences may require additional time spent at CCNY. See most recent curriculum sheet for details.

	INTEC	CCNY	
CCNY YEAR 3 - SEMESTER 1		Engr 10300: Analysis Tools for Engineers	2
		Math 39200 Linear Algebra & Vector Analysis	3
		CE 26400: CE Data Analysis	3
		Engr 23000: Thermo I	3
		Engl 21007: Writing and Composition	3
CCNY YEAR 3 - SEMESTER 2		Technical Elective I (from Table 4)	3
		Engr 30100 Intro to Remote Sensing	3
		Engr 59910: Geographic Information Science	3
		ME 35600: Fluid Mechanics	3
		EAS 21700: Systems Analysis of the Earth	4
CCNY YEAR 4 - SEMESTER 1		CE 365000: Hydraulics & Hydrology	3
		CE 37200: Environmental Impact Analysis	3
		Engr 59869: ESE Design I	2
		Technical Electives II, III (from Table 4)	6
		ME 43000: Thermal Sys. Anal	3
CCNY YEAR 4 - SEMESTER 2		Engr 59870: ESE Design II	3
		CE 47400: Environmental Engineering	3
		ENGR 51001: Advanced ESE Elective	1
		Technical Elective IV,V,VI (from Table 4)	9
		Credits earned at CCNY	**63**

Table 4. List of technical electives. A minimum of three of the six technical electives must be in engineering. All electives must be approved by an advisor

Technical Electives

ChE34200: Transport Phenomena II	3	EAS 30800: Earth Syst Mod/Databases	3
ChE 34900: Prob, Stat & Desgn of Exp	3	EAS 31700: Satellite Meteorology	3
ChE 59812: Energy Sys Engr for Glob Sust	3	EAS 31800: Fundamentals of Atmos Sci	3
CE 33500: Computational Meth in CE	3	EAS 32800: Global Hazards	3
CE 40100: Fundamentals of Engineering	1	EAS 34500: Hydrology	3
CE 45100: Environ. Water Resources	3	EAS 36500: Coastal and Ocean Proc	3
CE 48200: Environmental Engineering II	3	EAS 41300: Environmental Geochem	3
CE 57100: Water Quality Analysis	3	EAS 43900: Mineral/Energy Resources	3
EE 20500: Linear System Analysis I	3	EAS 48800: Climate Change	3
EE 33000: Electromagnetics	3	EAS 56100: Geophysics	3
EE 35700: Electrical Power	3	EAS 44600: Ground Water Hydro	3
EE 42800: Photonics Lab	1	Engr 5110X: Spec Projects in ESE	3
EE 45500: Elements of Power Sys	3	Engr 59803: Industrial Ecology	3
EE 46200: Photonics Enginering	3	Engr 55680: Special Topics in RS	3
EE G6800: Optical Remote Sensing	3	Bio 10100: Bio Foundations I	4
ME 32200: Computer Methods in Engr	3	Bio 10200: Bio Foundations II	4
ME 33000: Heat Transfer	3	Bio 20700: Organism Biology	4
ME 47100: Energy Systems Desgin	3	Bio 22800: Ecology and Evolution	4
ME 53600: Energy Conversion	3	Bio 22900: Cell and Molecular Bio	4
ME 54700: Environmental Control	3	Bio 35000: Microbiology	4
ME 55600: Advanced Fluid Mechanics	3	Chem 24300: Quant Analysis	3
Phys 32100: Modern Physics	3	Chem 26100: Organic Chemistry I	3
Phys 32300: Quantum Mechanics	3	Chem 26300: Organic Chemistry II	3
Phys 35100: Mechanics I	3	Chem 27200: Organic Chemistry Lab	2
Phys 45100: Thermo & Statistical Phys	3	Chem 33100: Physical Chemistry Lab I	2
Phys 45200: Optics	3	Chem 33200: Physical Chemistry II	3
		Chem 40600: Environmental Chem.	3
		Chem 40700: Environ Organic Chem	3
		Chem 43400: PChem & Chem Instr Lab	2