Agreement Information

Institution name	Universidad del Norte (UN), Barranquilla, Colombia	
Type of agreement	Memorandum of Understanding (MOU)	
Effective period of agreement	Indefinite; either party can terminate with 6 months notice	
Sponsoring entity College of Engineering, Department of Computer Science Engineering		

Institution Information

Anticipated collaboration activities under this agreement	Graduate degree completion of UN students at USF	
Please explain how the above activities align with the University's 2007-2012 strategic plan	Internationalization of the University. Expanding world-class interdisciplinary research, creative, and scholarly endeavors	
Prior or current collaboration activities with this institution	Undergraduate MOU, Undergraduate Exchange Agreement	
General information regarding the institution	UN is the main private university in the Colombian Caribbean region. The College of Engineering is ABET accredited.	

Sponsor Contact Information

Contact name	Dr. Miguel A. Labrador
Contact phone number	974-3260
Contact e-mail	mlabrador@usf.edu

Endorsement

	Name	Signature	Date
Faculty member	Dr. Miguel A. Labrador	blight solot	07/13/2072
Department Chair	Dr. Lawrence Hall	L.O. Hall	7/16/12
College Dean	Dr. John Wiencek	Malal	7/1/1/>
Dean of International Affairs	Dra. Maria Crummett	M SI	7/17/12



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is between the Universidad Del Norte (UN) in Barranquilla, Colombia and the University of South Florida (USF) Board of Trustees, a public body corporate, for its College of Engineering (CoE). Specifically, the MOU refers to the transfer of UN's graduate students to USF's Department of Computer Science and Engineering.

- 1. UN is interested in having their Master of Computer and Systems Engineering complete 12 USF graduate equivalent credits at UN and then transfer to USF to complete the degree requirements.
- 2. UN will choose the students and submit their official application to USF through the College of Engineering's Director of Admissions and Advising.
- 3. UN students must take the TOEFL and the general GRE exams and obtain the minimum scores required for admission to the graduate program in the Department of Computer Science and Engineering, as specified in the department's Website (www.csee.usf.edu):

Regarding the TOEFL:

- a. Submission of TOEFL scores with an Internet-based score of 79 or higher for applicants from non-English speaking countries. If consideration of an assistantship is desired, the speaking score component of the TOEFL must be 26 or above, or a score of 6.5 on the International English Language Testing System, (IELTS).
 - b. The TOEFL requirements may be waived if the applicant meets one of the following conditions:
 - Has scored 500 or higher on the GRE Verbal Test.
 - Has earned a college degree at a U.S. institution of higher learning.
 - Has earned a college degree from an institution whose language of instruction is English, (must be noted on the transcript).
 - Has scored 6.5 on International English Language Testing System, (IELTS).

Regarding the GRE:

- c. UN students will be exempt from the GRE examination since UN is a university accredited by a US accreditation body (ABET), as specified in the current entrance requirements.
- d. For other admission requirements, the students should consult the "Admissions and Related Matters" chapter of the Graduate Catalog.
- 4. Attachment I shows those courses from UN that will be automatically transferred, if the grade obtained is B or better.
- 5. Attachment II includes a grade equivalence table.
- 6. Attachment III includes a list of optional/elective courses that the students could take to complete the remaining 18 credits at USF.
- 7. Attachment IV shows the courses that the students should take at USF and other requirements to graduate with a Master of Science in Computer Science (MSCS) degree.
- 8. Courses/curricula and USF graduate requirements sometimes change and both parties must be in continuous communication to satisfy the requirements of this MOU.
- 9. With a six-month notice, either party can end this MOU.



University of South Florida

Dr. Ralph Wilcox

Provost

295024 2012

Date

Approved as to Form and Legal Sufficiency

Henry W Lavandera Attorney USF Universidad del Norte

Dr. Jesus Ferro Bayona

Rector

63 111. 2012

Date



Attachment I

The following table includes the graduate-level courses in the curriculum of the Master in Computer and Systems Engineering at the University of North (UN) that are considered transferable for 3 credits each to the Master of Science in Computer Science degree at USF. Courses taken from UN not included in this table will be considered on a case-by-case basis upon the presentation of the required information. No more than four of these courses (12 credits) will be transferred.

C Title	USF Credits
Advanced Discrete Mathematics	3
Optimization Theory	3
Queuing Theory	3
Network Technology	3
Network Optimization	3
Software Process Quality	3
Software Development Methods	3
Software Development Platforms	3

Attachment II

Grade equivalence table:

UNORTE Grades	Equivalent Grade in USF
4.50-5.00	A
3.80-4.49	В
3.50-3.79	С
3.00-3.49	D
Less than 3.0	F F



Attachment III

List of optional courses to complete 18 credits at USF

- 81452 CAP 5400 901 Digital Image Processing
- 92445 CAP 5771 1 Data Mining
- 85277 CIS 6930 1 Fuzzy Logic
- 89154 CIS 6930 2 Advanced Databases
- 81454 CIS 6930 3 Seminar in Computer Vision
- 81686 CIS 6930 4 Algorithms for Robotics
- 82676 CIS 6930 10 Adv. Data Structures
- 84725 CIS 6930 12 CMOS-VLSI
- 86740 CIS 6930 901 Compiler Design
- 83304 CIS 6940 802 Graduate Instruction Methods
- 16484 CAP 5625 1 Introduction to Al
- 11739 CAP 6100 1 Human Computer Interface
- 14606 CDA 5416 1 Intro to Computer-Aided
- 17084 CIS 6930 2 Data Mining in Bioinformatics
- 13753 CIS 6930 3 Adv. Program Lang Design
- 13003 CIS 6930 5 Biometrics
- 12244 CIS 6930 7 Parallel & Distributed Comp
- 16168 CIS 6930 8 Bio-Inspiration for Robotics
- 18263 CIS 6930 9 Seminar in Robotics
- 13752 CIS 6930 13 Prob. Modeling, Est. & Inference
- 12245 CIS 6930 7 Parallel & Distributed Comp

Attachment IV

After transferring 12 UN credits to USF, UN students must successfully complete the remaining 18 credit hours at USF, as follows:

- 1. They must take the three core courses of the MSCS degree: EEL 6764 Principles of Computer Architecture, COP 6611 Operating Systems, and CIS 6405 Introduction to Theory of Algorithms.
- 2. They need to demonstrate competency in the major area by: either submission or successful defense of a Master's thesis (Thesis option), or achieving "B" or better in the core courses listed above (Non-thesis option).
- 3. To be part of this agreement, UN students will have to start their master's degree at UN and take at least 12 credit hours at UN before transferring to USF.
- 4. They must maintain a minimum overall 3.0 grade point average. Failure to do so for one semester places the student on academic probation. Failure to do so for two consecutive semesters may result in the student's dismissal from the graduate program.
- 5. For the non-thesis option, a student can take the remaining 9 credits in 5000- or 6000-level elective courses, and one of these 3-credit courses can be an Independent Study (CIS 6900). At least 16 credit hours must be at the 6000-level for the entire program.
- 6. For the thesis option, the student must take at least 6 thesis credit hours (CIS 6971). The remaining credits can be in 5000- or 6000-level elective courses, and one of these 3-credit courses can be an Independent Study (CIS 6900). At least 16 credit hours must be at the 6000-level for the entire program.
- 7. The thesis option requires a supervisory committee to approve and direct the student's thesis work. The major professor and at least one committee member must be from Computer Science and Engineering from USF. A third member must be a professor of Systems Engineering Department from UN.
- 8. The thesis work must then be presented at a public session and pass an oral examination before the final acceptance. As a joint, collaborative work, the Intellectual Property of the thesis work will be shared by both universities in percentages equals according to their contributions.
- 9. UN students will pay tuition at UN and USF for the courses taken at each institution at the approved rates at that time. As a reference, Fall 2011 in-state and out-of-state tuition rates at USF for graduate students are included in the table below. UN students may qualify for scholarships that will categorize them as Florida residents.

Course Location	Graduate Level In-State (5000 & Up)	Graduate Level Out-of-State (5000 & Up)
Tampa	\$399.76	\$821.06

