

ACADEMIC COOPERATION AGREEMENT

RELATED TO THE JOINT DEGREE PROGRAM

between

East China Normal University (P.R. China) (ECNU)

Represented by the President, Professor Xuhong QIAN

and

Université Côte d'Azur (UniCA)

Represented by the President, Professor Jeanick BRISSWALTER

According to the general agreement of cooperation signed between East China Normal University and Université Côte d'Azur, on;

According to the willingness of all two institutions to consolidate their existing cooperations and to enhance their relationships through the implementation of a high-level international degree course in Computer Science, the two parties hereby agree and stipulate as follows.

Article 1 - Aim of the Agreement

East China Normal University (hereafter as ECNU) and Université Côte d'Azur (hereafter as UniCA), set up, by means of this agreement, a double degree program in Computer Science.

Students enrolled in this program will receive, after successful completion:

- A Master Degree of "Software Engineering" from East China Normal University
- A Master Diploma in Computer Science from Université Côte d'Azur

Article 2 – Program Management and Coordination

Management and coordination of this program is performed by:

- For UNICA:
 - Full Professor Andrea Tettamanzi (coordinator of the Computer Science Master)
 - Assoc. Professor Ramon Aparicio Pardo (coordinator of the 2nd year of the international version of the Computer Science Master, and Head of the International Relations of DS4H School)
- For ECNU:
 - Professor Geguang PU (Executive Dean of Software Engineering Institute, East China Normal University).

Article 3 - Selection of students

Students enrolled in this program will be selected by their home university.

ECNU students can apply for joining the Double Degree Agreement at UniCA Master in Computer Science, if they complete at least 24 credits for courses taken in the first year at ECNU. To obtain a Master degree in Computer Science from UniCA, students from ECNU must combine ECNU and UniCA courses: they must attend the first two semesters at ECNU, and the third and fourth semesters at UniCA. After that, ECNU students may continue their study at ECNU to obtain a degree from ECNU (see Technical Annex for more details).

UniCA students can apply for joining the Double Degree Agreement at ECNU, if they complete at least at least 60 ECTS for courses taken in the first year at UniCA. To obtain a Master degree in Software Engineering from ECNU, students from UniCA must combine UniCA and ECNU courses: they must attend the first two semesters at UniCA, and the third and fourth semesters at ECNU (see Technical Annex for more details).

Each institution will apply its own enrolment procedure and commit to follow a fair and transparent procedure based on the academic merits of the candidates. The list of students selected at one institution will be submitted for approval to the other institution. Each institution can select up to 10 students per academic year.

Article 4 - Student subscription rules

Students attending this master program will be enrolled at each academic institutions according to the chosen academic track (ECNU and UniCA) at the beginning of the program.

Tuition fees will be paid only at the sending institution.

International students received at Université Côte d'Azur as part of the double-diploma program must pay the CVEC contribution in advance. In accordance with national regulations in France, each student must pay the Contribution de la Vie Etudiante et de Campus - CVEC directly (effective July 1, 2018). The amount of the CVEC for the year 2023/2024 has been set at national level at €100. This amount is subject to revision at the start of each academic year. Payment of this contribution must be made, prior to registration, with the CROUS on the dematerialized platform (<https://cvec.etudiant.gouv.fr/>).

However, students might pay at the receiving institution, during their international mobility, specific contributions related to the social security, cultural and sports activities, preventive health services and others under the national regulations in force.

Article 5 - Program articulation

The involved institutions will organize courses and examinations, setting up the total number of credits (ECTS), according to the list of courses available at each institution. Those lists will be exchanged between the managers of the program before the mobility periods. Each partner commits to inform the other institution in case of changes in its program implementation.

If a course listed in the program is missing, it can be replaced by another one, provided that this change be validated by the other institution.

A Learning agreement will be established for each student enrolled in the program, and validated by each institution, prior to the mobility period.

Article 6 - Development of the Program

The students make a part of the training program at East China Normal University (ECNU) and a part at Université Côte d'Azur (UniCA), according to the program chosen and according to the rules of each academic institution.

To obtain the Master diploma in Computer Science from UniCA, the ECNU students must complete two semesters at UniCA. This can include the master thesis at the partner institution, according to the co-supervision rules of Article 7.

For UniCA students, to get a master in Software Engineering, they must spend at least two semesters at ECNU (either in their first year or second year), submit a master thesis report (in English) at the end of the year spent at ECNU and present their work (in English) in front of a jury composed of either

- 3 members, 2 from ECNU and 1 from UniCA,
- or 5 members, 3 from ECNU and 2 from UniCA.

The Credit Recognition conditions are developed in more details in the Technical Annex.

Article 7 - Validation of the curriculum of students

At the end of the master program, each student must prepare a master thesis.

The thesis will be co-tutored by a professor or researcher from ECNU, and by a professor or researcher from Université Nice Côte d'Azur or an associated research laboratory (CNRS, INRIA).

One copy of the thesis will be drawn up and delivered according to the rules provided by Université Nice Côte d'Azur and one copy will be drawn up and delivered according to the rules of ECNU.

The thesis defense will take place in the language of the specific country or in English if selected by the student and according to the teaching rules of both the academic institutions.

The thesis discussion will take place only once if at least one professor or researcher of the other institution is part of the local board of examiners. On the contrary, the thesis can be discussed in both the academic institutions.

Article 8 - Coordination of the Program

The parties agree to regularly exchange information and teaching materials concerning this program, in order to accomplish this double degree program.

Article 9 – Personal data protection

The parties declare that they have been informed and agree that the provision, the collection or any other type of personal data processing will be performed exclusively for the purposes of the present agreement and will be limited to the agreement duration.

The processing of personal data should comply with the respective national legislation of each party as well as with the EU Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data.

Article 10 - Program funding

According to the rules of their respective countries, the parties commit to search for European, national and regional fundings to achieve the goals of this agreement, especially to support student's travel and accommodation costs, as well as those of the professors and researchers involved in the project.

Article 11 - Validity of the Agreement

The present agreement is set up for a period of 5 years and will cover the following academic years: 2024-2025, 2025-2026, 2026-2027, 2027-2028 and 2028-2029.

Any modification to this agreement will require an amendment to be signed by the concerned institutions according to the regulations in force.

Each institution can, through a written notification delivered at least 6 months in advance, terminate the present document. In such a case, the institutions commit to fulfill their obligations for the students still enrolled in the program before the cancellation.

Article 12 - Dispute between parties

In case of dispute, parties will seek a friendly solution through direct negotiations. If an agreement is not reached within a six-month period, the parties will submit the case to a third-party that will be jointly designated, taking into account the academic nature of the dispute.

In the event of any inconsistency or discrepancy between the English version and any other version, in a different language, of the agreement, the English version shall prevail.

For East China Normal University (ECNU)	For Université Côte d'Azur (UniCA)
Vice President of ECNU	:
Prof. XXX	

<p>Date :</p>	<p>The President of UniCA Prof. Jeanick BRISSWALTER</p> <p>Date :</p>
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Technical Annex

This supplement defines the details of the Credit Recognition Agreement, and is based on the ECNU master degree program in Computer Science and Software Engineering and the UniCA master degree program in Computer Science.

This annex describes the program of the first and second year of the Master of each University: **East China Normal University** (ECNU), **Université Côte d'Azur** (UniCA).

Credit Equivalence:

UniCA is using the European credit transfer system, named **ECTS**. ECNU is using the Chinese credit system, simply labeled **Credits** herein.

- Two semesters of master at ECNU correspond to a required amount of 24 Credits, while a full year of master track at UniCA corresponds to 60 ECTS.
- As a consequence, UniCA and ECNU agree that:
$$2 \text{ Credits at ECNU} = 5 \text{ ECTS at UniCA}$$

Procedures

For ECNU students admitted at UniCA:

UniCA Master in Computer Science:

- To obtain a Master degree in Computer Science from UniCA, students from ECNU must combine ECNU and UniCA courses: they must attend the first two semesters at ECNU, and the third and fourth semesters at UniCA. After that, ECNU students may continue their study at ECNU to obtain a degree from ECNU.
- To be admitted at UniCA, they are required to complete at least 24 credits for courses taken in the first year at ECNU.

- In the second year they must follow the second year of the UniCA Computer Science Master, Ubinet track, including courses and project in the first semester (up to 30 ETCS), and a 6-month internship in the last semester. The program of the second year of the UniCA Computer Science Master, Ubinet track, is added at the end of this Technical Annex.
- Details in the internship:
 - After the first 3 months the students must give a “mid-road” presentation, in English, in front of a jury composed of either:
 - 3 members, 2 from UniCA and 1 from ECNU,
 - or 5 members, 3 from UniCA and 2 from ECNU.

The internship advisors cannot be part of the jury. The members ECNU may participate through video-conference.

- At the end of the internship, the students must write a master thesis report, in English.
 - The internship amounts to 30 ETCS, shared between the work, the mid-way defense, and the report.
- A final jury, composed according to the rules of UniCA, plus one invited member from ECNU, will decide the attribution of the master diploma from UniCA, based on the credits obtained during this second year.
- Back to ECNU, the students will be able to complete one of the local master track, according to the ECNU requirements. They must write a master thesis and pass the thesis defense according to the ECNU requirements. They must also publish an academic paper according to the requirements of the School of Computer Science and Software Engineering at ECNU. ECNU recognizes that the 60 ECTS obtained at UniCA corresponds to 24 Credits.

For UniCA students admitted at ECNU:

- To obtain a Master degree in Software Engineering from ECNU, students from UniCA must combine UniCA and ECNU courses: they must attend the first two semesters at UniCA, and the third and fourth semesters at ECNU.
- To be admitted at ECNU, they are required to complete at least 60 ECTS for courses taken in the first year at UniCA.
- The two semesters at ECNU include: a number of courses selected from Table 1 achieving at least 10 credits; a project for 2 credits; and a master thesis project (equivalent to the French “internship”) for 12 credits.
- At the end of the year spent at ECNU, they are required to submit a master thesis report (in English) and present their work (in English) in front of a jury composed of either:
 - 3 members, 2 from ECNU and 1 from UniCA,
 - or 5 members, 3 from ECNU and 2 from UniCA.

The internship advisors cannot be part of the jury. The members from UniCA may participate through video-conference.

- At the end of this year at ECNU, if the students have validated 24 credits, ECNU will deliver them the *ECNU Master of Engineering (Software Engineering) Professional Degree*.
- Back in Nice, they will be delivered the *Master in Computer Science* diploma from UniCA without any additional requirement, and the equivalent 60 ECTS for the second year.

Table 1

Course Name	Credits
Algorithm Design and Analysis	3
Mathematical Foundation of Network Security	3
Theoretical Foundation of Software	3
Computer Architecture	3
Formal Development of Trustworthy Software	3
Robotics Technology	3
Coding Techniques in Communication Systems	3
Requirement Engineering Methods	3
Blockchain: Theory and Application	3
Artificial Intelligence	3

Software Architecture Design	2
Finite Field and Coding Theory	2
Cryptography	2
Algebraic Formal Methods	2
Analysis and Verification for Intelligent Systems	2
Big Data Technologies and Applications	2
Cloud Computing Security	2
Software/Hardware Co-Design	2
Operation Research and Optimization Method	2
Process Algebra	2
Fundamentals of Artificial Intelligence	2
Cryptography Design and Cryptanalysis	2
Introduction to Scientific Computing	2
Program Verification Methods	2

Network Security Protocols	2
Frontiers of Software Analysis and Verification	2
Machine Learning	2
Model-driven Software Development	2
System Safety and Security Techniques	2
Cloud Computing Technology	2
Optimization for Machine Learning	2
Information Retrieval In High Dimensional Data	2

Cloud Computing Security	2
Big Data Technologies and Applications	2
Robotics Technology	3
Process Algebra	2
Machine Learning	2
Coding Techniques in Communication Systems	3
Requirement Engineering Methods	3
Blockchain: Theory and Application	3
Internet of Things and Intelligent System	3

Artificial Intelligence	3
Optimization for Machine Learning	2
Information Retrieval In High Dimensional Data	2

The program of the second year of the UniCA Computer Science Master, Ubinet track

The Master 2 year consists of two semesters and allows you to earn 60 ECTS (European Credits Transfer System).

The first semester consists of core and optional modules. In addition, each student must complete a Personal Project in one of the partner institutions (I3S or INRIA) for a total of 6 ECTS credits (equivalent to around 120 hrs of work).

Semester 1, Mid-September to February (30 ECTS)

UE1 (6 ECTS)

Graph Algorithms and Combinatorial Optimization	2 ECTS
Machine learning: Theory and Algorithms	2 ECTS
Algorithmic Approach to Distributed Systems	2 ECTS

UE2 (6 ECTS)

Evolving Internet	2 ECTS
Multimedia Networking	2 ECTS
Performance Evaluation of Networks	2 ECTS

UE3 (Project) (6 ECTS)

Personal Project	5+1/3 ECTS
French or English course	2/3 ECTS

Optional UEs - 12 ECTS in total

There are two cases to obtain the 12 credits:

Case 1: 6 courses picked in the following list

Internet Measurements and New Architectures	2 ECTS
Full Stack Software Engineering for IoT	2 ECTS
Blockchain and Privacy	2 ECTS
Algorithms for Telecommunication Networks	2 ECTS
Introduction to Security	2 ECTS

Machine Learning for Networks: Algorithms and Architectures	2 ECTS
Virtualized infrastructure in cloud computing	2 ECTS
Architecting IoT System: Beyond Functional Correctness	2 ECTS
Large scale distributed systems	2 ECTS

Case 2:

1 EUR courses (Autumn/Winter) proposed in the fall semester 2022-2023 is here (3 ECTS)

The "Initiation to Research" course (1 ECTS) + 4 courses from the list of case 1 (8 ECTS)

Semester 2, March to August (30 ECTS)

Internship