



INSTITUTO
SUPERIOR
TÉCNICO



Cooperation Agreement
CONCERNING
DUAL MASTER'S DEGREE PROGRAMMES
between
INSTITUTO SUPERIOR TÉCNICO (IST)
Lisbon, Portugal
and
UNIVERSITÀ DEGLI STUDI OF CAMERINO (UNICAM)
Camerino (MC), Italy

Preamble

In the full awareness of the general mission with which they have been invested, namely the advancement and dissemination of knowledge and also mindful of the need to advance the cause of humanity and understanding between peoples and in consideration of the wishes of our respective governments to strengthen the ties of friendship and cooperation, and taking into account the strong cooperation in academic activities as witnessed from:

- a) the existence of an Erasmus Intensive Programme on Organometallic Chemistry in which both parts are involved;
- b) the planning for establishing an ERASMUS MUNDUS course in Chemistry involving both Institutions;
- c) the involvement of teachers from both Institutions in the organization of the International School of Organometallic Chemistry, held regularly in Camerino since 1997;
- d) the continuous exchange of students and teachers between the two Institutions within the LLP- ERASMUS Programme;
- e) the high-quality joint-research disseminated recently on high-quality scientific journals:

the Instituto Superior Técnico (hereinafter IST), with legal domicile Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal, and represented by its President, Professor Carlos Matos Ferreira, and the Università degli Studi di Camerino (hereinafter designated UNICAM), with legal domicile Piazza Cavour 19, 62032, Camerino (MC), Italy, and represented by its Rector, Professor Fulvio Esposito, hereinafter referred to as parties to this Agreement, hereby agree towards the establishment of a Dual Master's Degree programme on Chemistry as follows:

Article 1 – Aim of the Agreement

This Agreement defines the requirements and obligations of IST and UNICAM in establishing a Dual Master's Degree Programme. The Programme, developed and organised jointly by the parties, leads

to two recognised Master's degree certificates, one from the student's home institution and one from the host institution.

Article 2 – Scope of the Agreement and definitions

This Agreement concerns the implementation of the Dual Master's Degree Programme. The contents and the curriculum of the Programme are specified in separate documents attached as appendices to this Agreement. These appendices are signed by the Deans or the equivalent representatives responsible at School level for the contents of the Programme, and shall be issued for each Programme.

This Agreement specifies the rights and responsibilities of both parties, and the terms under which students from IST and from UNICAM may be granted, upon successful fulfilment of the Programme and of all requirements for graduation at each institution, the academic degrees and diplomas of comparable academic levels from both institutions.

Both parties agree to the following general forms of cooperation and general requirements for all students participating under this Agreement. The term 'Master's programme' refers to the parties' two-year programmes at Master's level leading to the corresponding degree issued by each party for that programme.

Article 3 – Extent of the Programme

The Dual Master's Degree Programme is a two-year programme (120 ECTS) at Master's level leading to two degree certificates, one from each institution. The students study at both institutions according to the curriculum and mobility plan defined in the appendices. The language of instruction of the Dual Master's Degree Programme is English.

The parties review the Programme's curriculum annually and make the necessary changes. Number of students participating in the Programme shall be negotiated and determined by the parties on a yearly basis.

Article 4 – Student Admission

The admission of students to the Programme will be conducted in accordance with the following principles:

- (i) The parties shall agree on the application procedure, including application deadlines, selection criteria and student quota. They will be defined in the appendices.
- (ii) The students must meet the admission criteria of the Master's programmes of both institutions.
- (iii) Students are selected and admitted to the Programme based on their academic results, prerequisite requirements, motivation and language skills. The selection is carried out in collaboration between the two institutions.
- (iv) Students shall have a home institution and a host institution defined.
- (v) Prerequisite for the mobility is that the student has successfully completed a sufficient number of credits at the home institution.
- (vi) No tuition fees are required at the host institution for students participating in the Programme.

Article 5 – Rights and Status of the Students

Students participating under this Agreement shall be enrolled as degree students. Students shall have the same rights and obligations as degree students in the respective institutions.

During the mobility, students will be responsible for covering the travel costs to the host country and living costs during their stay, including accommodation, books, equipment, consumables, language tuition prior to the commencement of coursework (where necessary), health and travel insurance, student union fee (if applicable) and other personal expenses arising out of the exchange.

Students participating in the Programme will be entitled to participate in any introductory programme that may customarily be arranged for international students at the host institution.

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Article 6 - Rights and obligations of the parties

The host institution will render assistance to the incoming students in finding appropriate accommodation.

In order to provide the students full exposure to all aspects of the European dimension, the participating institutions under this Agreement shall try to put in place mechanisms to ensure that the students are offered the possibility to take at least one European language and/or culture course during the study period at the host institution. Both parties agree to take action to obtain financial support for this Programme from European or other financial resources.

Article 7 – Study Plan and Course of Study

Detailed conditions regarding the course of studies shall be specified in the appendices, as well as in the individual student agreements (learning agreements), signed by representatives of the respective schools and/or divisions of each institution.

Each student will propose an individual study plan made according to the agreed curriculum (appendix) for the total duration of the Programme. This study plan will be reviewed and, if needed, modified prior to final admission. A written study contract (learning agreement) must be established and signed by both institutions prior to arrival at the host institution. This contract may be revised at any time in written form with seal of approval from the academic representatives of the two institutions.

Article 8 – Final Degree Project

The total work load for the final degree project (master's thesis) should correspond to one semester full-time. The subject of the final degree project must always receive an advance approval in writing from a faculty member of the host as well as the home institution. The final degree project is normally carried out under the supervision of a faculty member of the host institution who is responsible for the arrangement of topic and subject area of the project. Normally, the final degree project is carried out in the country of the host institution, but exceptions may be negotiated on a case-by-case basis. In addition, co-supervision of the project is possible.

The final degree project shall fulfil the rules and regulations of both institutions.

The final degree project results in a report written in English.

Article 9 – Control of results

At the end of the academic year, the host institution shall send to the home institution a copy of each student's transcript in English. The parties agree that exams/courses shall be graded and awarded credits according to the rules of the institution where the exam/course is carried out.

Article 10 - Delivery of the academic degrees

Each institution grants the student credit transfer from the other institution according to the applicable rules, laws and regulations of that institution.

Students successfully completing their studies of the Dual Master's Degree Programme obtain two degrees, one issued by the home institution and one issued by the host institution. Students also receive a joint certificate signed by representatives of the two institutions. The certificate shall refer to the joint programme and specify the two degrees issued by the partner institutions.

Article 11 - Academic and administrative representatives

Each institution will nominate an academic and an administrative representative for the Programme. These representatives will be responsible for following the Programme and for ensuring that measures are taken in accordance with this Agreement. The representatives will provide advisory and other academic and administrative services to students participating under this Agreement. Names and contact details of these representatives are in an appendix to this Agreement.

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Article 12 – Quality assurance

Both parties will implement their local evaluation systems for courses and programmes. The feedback and future improvements will be treated at the annual meetings of the persons responsible for the Dual Master's Degree Programme.

Article 13 - Terms of Agreement

This Agreement shall come into effect on the day of signature by both institutions and is valid for five years. Either institution may terminate this Agreement, provided that written notice of the intent is given at least six months prior to termination. Commitments already in progress shall be fulfilled.

Article 14 - Amendments or changes

Amendments or changes to this Agreement shall be made in writing and signed by the duly authorised representatives of the institutions.

The parties agree to solve in a friendly manner any controversy rising from the interpretation of the present Agreement.

In case the controversy cannot be resolved, the claim will be submitted for arbitration; each party will appoint a member of the arbitration panel, and one member will be chosen by mutual consent.

This Agreement has been signed in two originals in English, of which each institution has taken one.

Date:

Camerino,

Date: 21 January 2009

Lisbon,



Prof Fulvio Esposito

Rector

UNICAM, University of Camerino



Prof Carlos Renato Matos Ferreira

President

IST, Instituto Superior Técnico

Annex 1 to the agreement on Dual Master between UNICAM and IST **Appendix A**

Dual Master Agreement

between

Università degli Studi di Camerino (UNICAM) e Instituto Superior Técnico (IST)

Duration: Academic Year 09/10 - 10/11

Degree program at UNICAM	Master Degree in Chemistry an Advanced Chemical Metodologies (120 ECTS)
Degree awarded	M.Sc.
Language of instruction	English
Entrance admission criteria	Bachelor of Science in Chemistry
Degree program at IST	Master in Chemistry
Degree awarded	M.Sc.
Language of instruction	English
Entrance admission criteria	Bachelor of Science in Chemistry
Number of students	2

Schematic Study Plan


Option 1			
Year	Institution	Studies	Remarks
1	UNICAM	Compulsory and elective courses	60 ECTS
2	IST	Courses + Master Thesis (co-supervised)	30+30 ECTS
Option 2			
Year	Institution	Studies	Remarks
1	IST	Compulsory and elective courses	60 ECTS
2	UNICAM	Courses + Master Thesis (co-supervised)	30+30 ECTS
The schematic study plan is applicable to students originated from UNICAM or IST indifferently. The detailed study plan must be defined by the academic coordinators for each student.			

Contacts:

<i>Academic responsible for the programme (IST):</i> Prof Armando Pombeiro (pombeiro@ist.utl.pt)	<i>Academic responsible for the programme (UNICAM)</i> Prof. Claudio Pettinari (claudio.pettinari@unicam.it)
<i>Contact person:</i> Silvia Santos, International Office (silvia.santos@ist.utl.pt)	<i>Contact person</i> Prof. Fabio Marchetti (fabio.marchetti@unicam.it)

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Signatures:

Date:	Date:
For IST	For UNICAM
	
Prof. Carlos Matos Ferreira President, Instituto Superior Técnico	Prof. Fulvio Esposito Rector, University of Camerino
	
Prof. Matilde Marques Masters coordinator (matilde.marques@ist.utl.pt)	Prof. Silvia Zamponi Masters coordinator (silvia.zamponi@unicam.it)

FIRST YEAR STUDIES	
IST	UNICAM
Autumn Semester (minimum of 30 ECTS)	
Option 1	Advanced Chemical Physics (6 ECTS)
Complex Analysis and Differential Equations (7.5 ECTS)	Advanced Organic Chemistry (6 ECTS)
Option 2	Advanced Inorganic Chemistry (6 ECTS)
Supramolecular Chemistry and Interfaces (4.5 ECTS)	Advanced Analytical Chemistry (6 ECTS)
Industrial safety and health (3 ECTS)	The student must take additional 8 ECTS among the proposed optional courses
Specific Sciences	
Catalysis and Catalytic Processes (6 ECTS)	
Specialization Laboratory 1 (6 ECTS)	
Pharmaceutical Chemistry (4.5 ECTS)	
Quantum Chemistry (6 ECTS)	
Spring Semester (minimum 30 ECTS)	
Science and Technology of Polymers (6 ECTS)	Option in Synthesis and Molecular Reactivity
Spectroscopy (4.5 ECTS)	Physical Methods in Organic Chemistry (5 ECTS)
Specialization Laboratory II (9 ECTS)	Industrial and Advanced Synthesis of Biologically Active Compounds (9 ECTS)
Materials (6 ECTS)	Organic Stereochemistry and Laboratory (6 ECTS)
Bioinorganic Chemistry (4.5 ECTS)	Physical Methods in Inorganic Chemistry (6 ECTS)
	Option in Chemical Methodologies of Control and Analysis
	Instrumental Analytical Chemistry and Laboratory (10 ECTS)
	Chemometrics (5 ECTS)
	Environmental Chemistry and Laboratory (10 ECTS)
	Chemistry of Pollutants (5 ECTS)

SECOND YEAR STUDIES	
IST	UNICAM
Autumn Semester (minimum of 30 ECTS)	
Photochemical Processes (4.5 ECTS)	Option in Synthesis and Molecular Reactivity
Computational Chemistry (4.5 ECTS)	Organometallic Chemistry (7 ECTS)
Industrial Chemistry (4.5 ECTS)	Inorganic Solid State Chemistry (7 ECTS)
Medicinal Chemistry (4.5 ECTS)	Green Chemistry (8 ECTS)
	Option in Chemical Methodologies of Control and Analysis
	Tecnologies for Waste Management (6 ECTS)
	Biomonitoring and Environmental Legislation (6 ECTS)
	Materials and their Interaction with Environment 6 ECTS)
Spring Semester (minimum 30 ECTS)	
Chemistry Project (12 ECTS)	Chemistry Project (10 ECTS)
Master Dissertation in Chemistry (30 ECTS)	Thesis (30 ECTS)
Thesis related activities will be supervised by both partners.	

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Annex 1 to the agreement on Dual Masters between UNICAM and IST **Appendix A**

Dual Master Agreement
between
Università degli Studi of Camerino (UNICAM) e Instituto Superior Técnico (IST)
Duration: Academic Year 09/10 11/12

Degree program at UNICAM	Master Degree in Chemistry an Advanced Chemical Metodologies (120 ECTS)
Degree awarded	M.Sc.
Language of instruction	English
Entrance admission criteria	Bachelor of Science in Chemistry
Degree program at IST	Master in Chemistry
Degree awarded	M.Sc.
Language of instruction	English
Entrance admission criteria	Bachelor of Science in Chemistry
Number of students	2

Schematic Study Plan

Option 1			
Year	Institution	Studies	Remarks
1	UNICAM	Compulsory and elective courses	60 ECTS
2	IST	Courses + Master Thesis (co-supervised)	30+30 ECTS
Option 2			
Year	Institution	Studies	Remarks
1	IST	Compulsory and elective courses	60 ECTS
2	UNICAM	Courses + Master Thesis (co-supervised)	30+30 ECTS
The schematic study plan is applicable to students originated from UNICAM or IST indifferently. The detailed study plan must be defined by the academic coordinators for each student.			

Contacts:

Academic responsible for the programme (IST): Prof. Armando Pombeiro (pombeiro@ist.utl.pt)	Academic responsible for the programme (UNICAM) Prof. Claudio Pettinari (claudio.pettinari@unicam.it)
Silvia Santos, International Office (silvia.santos@ist.utl.pt)	Contact person Prof. Fabio Marchetti (fabio.marchetti@unicam.it)

Signatures:

Date:	Date:
For IST	For UNICAM
Prof. António Cruz Serra President, Instituto Superior Técnico	Prof. Fulvio Esposito Rector, University of Camerino

Prof. Matilde Marques
Masters coordinator
(matilde.marques@ist.utl.pt)

Prof. Silvia Zamponi
Masters coordinator
(silvia.zamponi@unicam.it)

FIRST YEAR STUDIES	
IST	UNICAM
Autumn Semester	
Option 1	Advanced Chemical Physics (6 ECTS)
Complex Analysis and Differential Equations (7.5 ECTS)	Advanced Organic Chemistry (6 ECTS)
Option 2	Advanced Inorganic Chemistry (6 ECTS)
Supramolecular Chemistry and Interfaces (4.5 ECTS)	Advanced Analytical Chemistry (6 ECTS)
Industrial safety and health (3 ECTS)	Physical Methods in Organic Chemistry (6 ECTS)
Specific Sciences	
Catalysis and Catalytic Processes (6 ECTS)	
Specialization Laboratory 1 (6 ECTS)	
Pharmaceutical Chemistry (6 ECTS)	
Quantum Chemistry (6 ECTS)	
Option 1 (6 ECTS)	
Spring Semester	
Science and Technology of Polymers (6 ECTS)	Curriculum in Synthesis and Molecular Reactivity
Spectroscopy (6 ECTS)	Organometallic Chemistry (7 ECTS)
Specialization Laboratory II (6 ECTS)	Industrial and Advanced Synthesis of Biologically Active Compounds (9 ECTS)
Materials (6 ECTS)	Organic Stereochemistry and Laboratory (6 ECTS)
Bioinorganic Chemistry (6 ECTS)	Physical Methods in Inorganic Chemistry (6 ECTS)
	Curriculum in Chemical Methodologies of Control and Analysis
	Instrumental Analytical Chemistry and Laboratory (10 ECTS)
	Chemometrics (5 ECTS)
	Environmental Chemistry and Laboratory (12 ECTS)
	Sample preparation in Analytical Chemistry (5 ECTS)

SECOND YEAR STUDIES	
IST	UNICAM
Autumn Semester	
Photochemical Processes (4.5 ECTS)	Curriculum in Synthesis and Molecular Reactivity
Computational Chemistry (6 ECTS)	Green Chemistry (7 ECTS)
Industrial Chemistry (4.5 ECTS)	The student must take additional 8 ECTS among the proposed optional activities
Medicinal Chemistry (6 ECTS)	
Chemistry Project (12 ECTS)	Curriculum in Chemical Methodologies of Control and Analysis
Option 2 (6 ECTS)	Tecnologies for Waste Management (6 ECTS)
Options 1 and 2 are free, provided that at least one is selected from courses offered in the areas of "Synthesis, Chemical Structure and Molecular Analysis" or "Physical Chemistry, Materials and NanoSciences".	The student must take 4 ECTS among the following courses: <ol style="list-style-type: none"> 1. Molecular Spectroscopy (4 ECTS) 2. Chemistry of Pollutants (4 ECTS) 3. Biomonitoring (4 ECTS) 4. Environmental Legislation (4 ECTS)
	The student must take additional 8 ECTS among the proposed optional activities
Spring Semester	
	Inorganic Solid State Chemistry (7 ECTS) only for Curriculum in Synthesis and Molecular Reactivity
Chemistry Project (12 ECTS)	Chemistry Project (10 ECTS)
Master Dissertation in Chemistry (30 ECTS)	Thesis (30 ECTS)
Thesis related activities will be supervised by both partners.	

Optional Activities for the Curriculum in Chemical Methodologies of Control and Analysis

Teaching Activity	ECTS
Crystallography	4
Electrochemistry	4
Radiochemistry	4

Optional Activities for the Curriculum in Synthesis and Molecular Reactivity

Teaching Activity	ECTS
Inorganic and Organometallic Biochemistry	4
Supramolecular Chemistry	4
Chemometrics	5
Crystallography	4
Radiochemistry	4
Environmental Chemistry*	6