

**AGREEMENT  
ON A  
DUAL MASTER DEGREE**

**BETWEEN**

**Tor Vergata University of Rome  
Department of Fisica**

*ROME  
ITALY*

**&**

**Technical University of Applied Sciences Wildau**

*WILDAU  
GERMANY*

## DUAL DEGREE AGREEMENT

It has been decided that cooperation in a dual master degree program will be established between the Technical University of Applied Sciences Wildau, City Wildau, Country Germany, hereinafter referred to as TUASW, and Tor Vergata University of Rome, Dipartimento di Fisica, Rome, Italy, hereinafter referred to as TV, wherein TV awards the **Master of Science (MSc)** degree in Science and Technology of Materials, and TUASW, Faculty of Engineering and Natural Sciences awards the **Master of Engineering (MEng)** degree in PHOTONICS in the frame of a joint master course realized in cooperation with the University of Applied Sciences Brandenburg.

### 1. DEFINITIONS

In this agreement, the following terms will be interpreted as follows:

- (a) *Exchange period* – the period during which a student is attached for the whole program, which shall be one academic semester;
- (b) *Dual degree student* – a student who participates in the dual degree program under this agreement;
- (c) *Home institution* – the institution of higher education in which a respective dual degree student is originally enrolled;
- (d) *Host institution* – an institution of higher education to which a respective dual degree student is attached for the duration of the program;
- (e) *Unit of exchange* – one dual degree student attending the program or a part thereof at the host institution.

### 2. SCOPE OF AGREEMENT

- (a) This dual degree program is a unique exchange based upon the principle of reciprocity in the number of fellows admitted each year as degree-seeking students under the terms of this agreement.
- (b) A maximum of 5 units of exchange each way per academic year will be initially arranged. However, this number may vary in any given year, provided a balance of exchanges is obtained over the term of this agreement. The number may be amended in mutual consent. Once a student from the home institution has registered at the host institution for the dual degree program, the quota is regarded to be filled even if the student fails to complete the term or academic year for any reason.
- (c) During the Master course, the students shall study at the host institution in the second semester of the first academic year. Furthermore, the students may prepare their Master Thesis, in the second semester of the second year, either at their own university or at the host university. Supervision will be given by experts from one of the involved universities.
- (d) A joint commission of four Professors composed of two Professors nominated by each institution will be responsible for following the activities under the present agreement.

### 3. SCREENING AND SELECTION

- (a) Candidates to join this program must be officially enrolled in a master program at their home institution.
- (b) Candidates to join the program must have completed at least 24 ECTS at their home institution before they attend the courses at the host institutions.
- (c) The recruitment of the students to the program is the responsibility of the home institution. Candidates joining this program will be interviewed and admitted by each institution. However,

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the host institution reserves the right to reject students if it considers that candidates do not meet the academic standards required by the host institution. The decision of the host institution in the selection of students is binding.

### **4. OBLIGATIONS BY BOTH PARTIES**

- (a) The courses in both institutions are taught in English. Credits obtained at the host institution are recognized by the home institution. Specific course loads, credits and contact hours are specified in the appendix of this agreement. Specific course requirements will be updated in relation to the admission process to the program in January each year.
- (b) Provided a student has completed all courses, obtained enough credits, received a passing grade on his/her thesis and on his/her oral defense in English, and has met all additional requirements of both institutions according to this dual degree program, he/she will be awarded the corresponding Master degree from each institution according to local rules of the participating universities.
- (c) Each of both contracting partners will assign a faculty member who will act as a mentor for the dual degree students enrolled in a given academic year throughout the whole duration of their master course.
- (d) The Master Thesis of students participating in the program must be presented at both institutions.

### **5. OBLIGATIONS FOR TUASW STUDENTS**

- (a) Students must fulfill at least 80% of the program-specific entry requirements upon admission.
- (b) The required workload for students before the exchange should be at least 24/30 ECTS of courses.

### **6. OBLIGATIONS FOR TV STUDENTS**

- (a) Students must fulfil at least 80% of the program specific entry requirements upon admission.
- (b) The required workload at (TV) before the exchange should be at least 24/30 ECTS of courses.

### **7. ACCOMMODATION**

The host institution will attempt to assist dual degree students to obtain, at students' expense, on-campus accommodation or, if not available, off-campus accommodation within reasonable access to the campus, e.g. by public transport. The host institution will provide further reasonable assistance, within its discretion and its capabilities. The Italian student will be favored in the transportation by the payment of a special carte at the University.

### **8. STUDENTS' OBLIGATIONS**

- (a) The host institution will issue appropriate documents to assist a prospective dual degree student to obtain a visa under the current legislation of the host country. Each dual degree student is responsible for obtaining his or her own visa and for complying with further immigration formalities. Moreover, he or she is solely responsible for submitting in due time all documents required to pursue the exchange period at the host institution.
- (b) An exchange student is also liable for all personal expenses incurred at the host institution, including visa, travel, housing, meals, health, books and stationery.

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- (c) An exchange student is required to cover, at his or her own expense, adequate travel and medical insurance for the entire period when he or she is away from his or her home country for purposes of study abroad, including the exchange period.
- (d) Students must pay their tuition fee only to their home institution. No tuition fee will be requested by the host institution.

### ***9. REGULATIONS OF HOST UNIVERSITY***

- (a) The dual degree students shall be subject to policies, procedures and the laws of the host institution and the host country. The students will be disciplined or expelled for violations in the same manner as students of the host institution.
- (b) The exchange students shall have the same rights and privileges regarding the facilities and amenities of the host institutions as the home students.

### ***10. DURATION & TERMINATION***

This agreement will be effective from the date of signature for an initial period of five years. Thereafter it shall be automatically extended for an additional period of five years at each expiration date unless either party provides written notice to terminate the agreement a minimum of 12 months prior to the expiration date. Termination will not affect exchanges in effect before the effective date of termination.

### ***11. MODIFICATIONS***

The parties may change or modify the terms of this agreement only by a written amendment signed by the parties. Any alteration can be made on condition that there is no prejudice to any participants.

### ***12. DATA PROTECTION***

Both Institutions shall apply the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (General Data Protection Regulation, hereinafter "GDPR") and the national laws transposing the GDPR.

Both Institutions shall undertake to exchange the personal data they process only for the purposes of this Agreement.

Whenever the activities referred to in Article 2 will imply the sharing/transfer of personal data, both Institutions shall establish through the executive protocols mentioned in Article 4 their respective responsibilities and roles (independent Controllers, Joint Controllers, Processors) deriving from the processing of the personal data.

### ***13. NON-DISCRIMINATION***

Both institutions subscribe to a policy of equal opportunity and will not discriminate on the basis of race, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability, or status as a veteran.

**14. REFERENCE'S OFFICES**

Start-up and implementation programme (IT):

**Reference Professor:** coordinator of the MSc programme under the agreement: Fabio De Matteis;  
phone number +39 067259-4521; e-mail [fabio.dematteis@roma2.infn.it](mailto:fabio.dematteis@roma2.infn.it);

**Head of International Relations Office:** Damiano Pinnacchio; +390672592556; e-mail:  
[relazioni.internazionali@uniroma2.it](mailto:relazioni.internazionali@uniroma2.it);

Start-up and implementation programme (D):

**Reference Professor:** coordinator of the MEng programme under the agreement: Martin Regehly;  
phone number +49 3375 508 126 ; e-mail [martin.regehly@th-wildau.de](mailto:martin.regehly@th-wildau.de);

**Head of International Relations Office:** Karin Schmidt; phone number +49 3375 508 851; email  
[karin.schmidt@th-wildau.de](mailto:karin.schmidt@th-wildau.de);

Year by Year programme activities:

**Reference Professor:** coordinator of the MSc programme under the agreement: Fabio De Matteis;  
phone number +39 067259-4521; e-mail [fabio.dematteis@roma2.infn.it](mailto:fabio.dematteis@roma2.infn.it);

**Head of Mobility Students Office:** Mirabela Salavastru; phone number: +390672592555; e-mail:  
[mirabela.salavastru@uniroma2.it](mailto:mirabela.salavastru@uniroma2.it);

**Secretary Students Office:** Ilenia Travaglini; phone number +39 067259-4083; e-mail  
[ilenia.travaglini@uniroma2.it](mailto:ilenia.travaglini@uniroma2.it);



TOR VERGATA  
UNIVERSITY OF ROME

The Rector  
Prof. Nathan Levialdi Ghiron

Date:

29 LUG. 2024

TECHNICAL UNIVERSITY OF  
APPLIED SCIENCES WILDAU

The President  
Prof. Dr. Ulrike Tippe

Date:

28.8.2024



MSC MATERIAL SCIENCES PROGRAM STRUCTURE AT TOR VERGATA			
PRIMARY ACADEMIC AREAS	DISCIPLINARY SECTOR	COMPULSORY COURSES	ECTS
CHEMISTRY AND PHYSICS OF MATTER	FIS/03	Theory of solids and Molecular models (1 sem)	6
		Materials and devices for optoelectronics (1 sem)	6
		New perspective for nanodevices by carbon allotropes (2 sem)	6
		Atomic-controlled Nanostructures by Organic Molecules (2 sem)	6
	Microscopy and nanoscopy (3 sem)	9	
	Superconducting and magnetic materials (3 sem)	9	
	Bioplastics (2 sem)	6	
MATERIAL ENGINEERING	CHIM/02	Chemical sensors (2 sem)	6
	ING-IND/22	Innovative materials for sustainable technology (1 sem)	6
COMPLIMENTARY ACTIVITIES	ING-INF/01	Organic and biological Electronics (1 sem)	8
	CHIM/03	Nanostructured materials for electronics (3 sem)	6
<b>COMPLIMENTARY ACTIVITIES AND ELECTIVE COURSES</b>			<b>ECTS</b>
	Internship & Elective course		12
<b>EXTRA ACTIVITY</b>			<b>ECTS</b>
	English Language (4 sem)		4
<b>FINAL THESIS</b>			<b>ECTS</b>
	Master thesis (4 sem)		30
<b>TOTAL</b>			<b>ECTS</b>
			120

<b>MSC PHOTONICS PROGRAM STRUCTURE AT TU WILDAU</b>	
<b>COMPULSORY COURSES</b>	<b>ECTS</b>
Mathematical Methods (1 sem)	5
Measurement technology and instrumentation (1 sem)	5
Microtechnologies (1 sem)	7
Structure of Matter (1 sem)	4
Technical optics 1 (1 sem)	5
Theoretical fundamentals of photonics 1 (1 sem)	4
Research and development project 1 (2 sem)	5
Laser technology (2 sem)	5
Optical measurement and analysis methods (2 sem)	7
Technical optics 2 (2 sem)	8
Elective Courses (2 & 3 sem)	9
Applied Photonics (3 sem)	6
Research and development project 2 (3 sem)	5
Laser materials processing (3 sem)	6
Management (3 sem)	4
Theoretical fundamentals of photonics 2 (3 sem)	5
DISSERTATION (Master Degree Project) (4 sem)	30
<b>TOTAL</b>	<b>ECTS</b>
	120

## STUDY PLAN FOR TOR VERGATA STUDENTS

1ST SEMESTER COURSES AT TV	ECTS TV	RECOGNIZED ECTS TUW	ECTS TV	ECTS TV
Theory of Solids and Molecular Materials	6			
Organic and Biological Electronics	8			
Materials and Devices for Optoelectronics	6	30		30
Innovative materials for sustainable technology	6			
English Language	4			
<b>2ND SEMESTER COURSES AT TU</b>	<b>ECTS TUW</b>	<b>ECTS TUW</b>	<b>CORRESPONDING EXAMS AT TV</b>	<b>RECOGNIZED ECTS TV</b>
Research and development project 1	5		Bioplastics	3
Laser technology	5		Internship	2
Optical measurement and analysis methods	7	30	Internship	3
Technical optics 2	8		Atomic controlled Nanostructures by Organic Molecules	2
Compulsory elective module 1	5		Chemical sensors	6
			Internship	1
			New perspective for nanodevices by carbon allotropes	6
			Atomic controlled Nanostructures by Organic Molecules	2
			Bioplastics	3
			Atomic controlled Nanostructures by Organic Molecules	2
<b>3RD SEMESTER COURSES AT TV</b>	<b>ECTS TV</b>	<b>RECOGNIZED ECTS TUW</b>		<b>ECTS TV</b>
Microscopy and nanoscopy	9			
Superconducting and magnetic materials	9	30		30
Nanostructured materials for electronics	6			
Elective course	6			
<b>FINAL THESIS (4th Sem.)</b>		<b>ECTS TUW</b>		<b>RECOGNIZED ECTS TV</b>
Final thesis must be submitted and presented at both institutions.	30	30		30
<b>TOTAL</b>	<b>ECTS</b>	<b>ECTS TUW</b>		<b>ECTS TV</b>
	120	120		120



## STUDY PLAN FOR TU WILDAU STUDENTS

1ST SEMESTER COURSES AT TUW	ECTS TUW	ECTS TUW	CORRESPONDING EXAMS AT TV	ECTS TV	RECOGN. ECTS TV
Mathematical Methods	5		Theory of solids and Molecular models	1	
			Superconducting and magnetic materials	2	
			Introduction to Quantum Optics	2	
Measurement technology and instrumentation	5		Organic and biological Electronics	1	
			Nanostructured materials for electronics	2	
			Introduction to Quantum Optics	2	
Microtechnologies	7	30	Organic and biological Electronics	1	30
			Microscopy and nanoscopy	6	
Structure of Matter	4		Theory of solids and Molecular models	2	
			Innovative materials for sustainable technology	2	
Technical optics 1	5		Materials and devices for optoelectronics	3	
			Microscopy and nanoscopy	2	
Theoretical fundamentals of photonics 1	4		Theory of solids and Molecular models	2	
			Superconducting and magnetic materials	2	
<b>2ND SEMESTER COURSES AT TV</b>	<b>ECTS TV</b>	<b>ECTS TV</b>			<b>ECTS TV</b>
Bioplastics	6				
Carbon allotropes materials	6				
Internship	6	30			30
Atomic-controlled Nanostructures by Organic Molecules	6				
Chemical sensors	6				

## STUDY PLAN FOR TU WILDAU STUDENTS

3RD SEMESTER COURSES AT TU	ECTS TUW	ECTS TUW	CORRESPONDING EXAMS AT TV	ECTS TV	RECOGN. ECTS TV
Applied Photonics	6	30	Organic and biological Electronics	2	30
Research and Development Project	5		Materials and devices for optoelectronics	2	
Laser Materials Processing	6		Nanostructured materials for electronics	2	
Management	4		Organic and biological Electronics	2	
Theoretical fundamentals of photonics	5		Superconducting and magnetic materials	3	
Elective course	4		Innovative materials for sustainable technology	4	
			Introduction to Quantum Optics	2	
			English Language	4	
			Theory of solids and Molecular models	1	
			Superconducting and magnetic materials	2	
		Nanostructured materials for electronics	2		
		Organic and biological Electronics	2		
		Materials and devices for optoelectronics	1		
		Microscopy and nanoscopy	1		
<b>FINAL THESIS (4th SEM)</b>		<b>RECOGN. ECTS TU</b>			<b>ECTS TV</b>
Final thesis must be submitted and presented at both institutions.		30			30
<b>TOTAL</b>		<b>ECTS TV</b>			<b>ECTS TV</b>
		120			120

CURRENT GRADING SCALE	
Italy	Germany
V	A
30 e lode	1
30	1.3
29	1,7
28	2
27	2,3
26	2,7
25	3
24	3,3
23	3,7
22	4
21	
20	
19	
18	
V<18	4<A<5

student **did pass**  
the exam

student **did not**  
pass the exam

Algorithm for conversion:  $V=18+(4-A)*4$   
 $A=4-(V-18)/4$

	I Semester							II Semester							III Semester							CFU Total
	MM	MTI	M	SM	TO1	TFP1	RDP1	LT	OMAM	TO2	CEM1	AP	RDP2	LMP	Mg	TFP2	CEM2	Master Thesis				
Tor Vergata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Theory of solids and Molecular models	5	5	7	4	5	4	2	2	2	2	2	2	2	2	2	2	2	2				
Organic and biological Electronics *	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0				
Materials and devices for optoelectronics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Innovative materials for sustainable technology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Other activities (English Language)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Bioplastics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Carbon allotropes materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Internship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Atomic controlled Nanostructures by Organic Molecules	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Chemical sensors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Microscopy and nanoscopy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Superconducting and magnetic materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nanostructured materials for electronics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Elective course	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Master Thesis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ECTS/CFU Total	120																					

Coinc. Progr.

Criticality for german students  
Criticality for italian students