



**SPECIFIC AGREEMENT GOVERNING THE AWARDING OF A DOUBLE DEGREE:
LICENCE MENTION SCIENCES de la VIE, PARCOURS BIOLOGIE CELLULAIRE,
GÉNÉTIQUE, MICROBIOLOGIE, PHYSIOLOGIE ANIMALE (BCGMP) FROM UNIVERSITÉ DE
RENNES 1 AND GRADO EN BIOTECNOLOGÍA FROM UNIVERSIDAD PABLO DE OLAVIDE,
SEVILLE**

THE PARTIES THAT ARE ENTERING INTO THIS AGREEMENT ARE

On the one hand, *Universidad Pablo de Olavide* (hereinafter UPO), Carretera de Utrera, km 1, 41013 Sevilla (Spain), represented by the institution's Dean, Prof. Vicente C. Guzmán Fluja.

On the other hand, Université de Rennes 1 (hereinafter UR1), in N° 2, Rue du Thabor, 35000 Rennes, represented by its institution's President, Prof. David ALIS.

Both parties, acting in the capacity of their respective positions and the representative powers bestowed upon them, mutually recognise each other's legal capacity to be bound by and enter into this present Agreement, to which end,

THE PARTIES HEREBY DECLARE

That it is the wish and will of both institutions to create/maintain a framework of academic, scientific and cultural collaboration to promote reciprocal cooperation in the fields of teaching, scientific research and culture, including cooperation actions that will be established by means of specific agreements entered into by both parties, in accordance with their teaching and research guidelines.

That both parties, by signing this present agreement, aim to, officially, establish/continue relations between the two institutions, and to achieve the goals of a high level of international education.

That both parties recognise the importance of developing intercultural relations and the benefits offered by academic opportunities to their students, and that they are interested in the specification of said collaboration through student mobility programmes that will allow these students to obtain official joint diplomas from each of the participating universities.

As a result of the above, both parties have decided to enter into this specific agreement, in accordance with the terms and conditions set out in the following:

CLAUSES

1. OBJECT OF THE AGREEMENT

The specific purpose of this agreement is to establish and regulate the possibility that students from either of the two signatory universities, provided they have completed certain studies in their home University, will be able to undertake certain other studies at the other signatory University, and that the completion of both sets of studies between the two universities will be mutually recognised by said universities, entitling the interested party to be awarded the two corresponding



official diplomas from each of said institutions: for students of UR1, a Degree in Grado en Biotecnología (hereinafter GBTG) from UPO; and for students of UPO the qualification of Licence mention Sciences de la vie, parcours Biologie cellulaire, génétique, microbiologie, physiologie animale (hereinafter BCGMP) from UR1.

2. OFFICIAL DIPLOMAS AWARDED

On the part of UPO, the studies covered by this present Agreement will lead to the awarding of a Degree in GBTG, organised and delivered by the Faculty of Experimental Sciences at said University.

On the part of Rennes 1 University, the studies covered by this present Agreement will lead to the awarding of BCGMP, organised and delivered by the Faculty of Unité de Formation et de Recherche des Sciences de la Vie et de l'Environnement (UFR SVE) at said University.

The Degree programme in Biotechnology has been acknowledged by the Ministry of Education, Culture and Sport. The Degree programme in GBTG leads to the awarding of a qualification that enables graduates to access second cycle studies (Masters' Degree programmes).

The BCGMP programme has been acknowledged by the UNIVERSITÉ DE RENNES 1. SPECIFICATIONS OF THE QUALIFICATION OFFERED BY THE COUNTERPARTY UNIVERSITY.

3. SUBJECTS COMPLETED BEFORE THE PERIOD OF MOBILITY AND RECOGNISED AT THE HOST UNIVERSITY

UPO pledges to recognise the subjects set out in Appendix 1.1 for the purpose of obtaining the credits corresponding to the qualification of a Degree in Biotechnology for students from Rennes 1 University.

UR1 pledges to recognise the subjects set out in Appendix 2.1 for the purpose of obtaining the credits corresponding to the qualification of BCGMP for students from UPO.

4. SUBJECTS COMPLETED DURING THE PERIOD OF MOBILITY AND RECOGNISED BY THE HOME INSTITUTION

UPO pledges to recognise the subjects set out in Appendix 2.2 for the purpose of obtaining the credits corresponding to the qualification of a Degree in Biotechnology for students from UPO.

UR1 pledges to recognise the subjects set out in Appendix 1.2 for the purpose of obtaining the credits corresponding to the qualification of BCGMP for students from Rennes 1 University.

5. LIST OF SUBJECTS TO BE COMPLETED UPON THE STUDENT'S RETURN TO THEIR HOME INSTITUTION

Students of UR1, upon returning to their home University, in order to be awarded the qualification of BCGMP, must complete the subjects listed in Appendix 1.3

Students of UPO, upon returning to their home University, in order to be awarded the qualification of a Degree in Biotechnology, must complete the subjects listed in Appendix 2.3



6. MONITORING

This present agreement will be monitored by Prof. Nouredine Boujrad on behalf of UNIVERSITÉ DE RENNES 1 and by Prof. Menta Ballesteros on behalf of UPO.

On behalf of UR1, all administrative procedures shall be managed by Scolarité des Sciences et Philosophie de l'Université de Rennes 1 pursuant to the provisions of regulations UR1. On behalf of UPO, these administrative procedures shall be managed in accordance with UPO's current regulations.

7. PROMOTION OF THE PROGRAMME

Both parties agree that promotion is a fundamental element for the launch and proper development of the programme, and, therefore, they pledge to use their name and institutional image for the dissemination of publicity and informative material, as well as all kinds of useful documents to publicise the programme. UPO and UR1 shall be responsible for the promotion and dissemination of the programme.

8. SELECTION OF STUDENTS

Each University shall designate which students are authorised to take part in the bi-national mobility programme. The number of students allowed to take part, and the requirements to access and remain on the programme, are set out in Appendix 4.

9. ENROLMENT DURING EACH YEAR'S STAY AT THE HOST UNIVERSITY

Students, who are selected, must enrol each year at the home University according to their legal requirements. This enrolment must cover all credits from the original course corresponding to the subjects the students are required to complete at the host University. Said enrolment will entitle the respective students to receive the corresponding services at the host University during one academic year, without needing to pay said University any further fees.

Students are exempted from paying any tuition fees in order to gain official recognition for the credits completed in the other institution.

Both universities guarantee that each student participating in the programme will be able to access the corresponding studies and receive certification for the studies completed. Subjects completed and exams taken will be recognised by the home University in order to obtain the corresponding qualification.

The students must register in the host University.

10. AWARDING AND ISSUING OF CERTIFICATIONS

During the first year of master's degree in UR1, UR1 students shall perform a Final Degree Project which they must present a manuscript that will be defended online at UNIVERSITÉ DE RENNES 1 and Pablo Olavide University, Seville. The Court will be composed of professors from the UR1 and UPO.



Students who successfully complete the study programme will receive two national qualifications from the two Universities signing this agreement: *Degree in Biotechnology* (UPO) and Licence mention Sciences de la Vie, parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale from Rennes 1 University.

Students must pay both Universities the corresponding administrative fees to receive their certifications, along with any administration fees, as set out in Appendix 3.

Accreditation of the evaluation results achieved in the subjects completed at the host University shall be made by means of an official document issued by the host University and signed by the respective programme Coordinator.

Furthermore, each student shall receive the corresponding European Diploma Supplements, issued by each University, setting out the details of the academic programme and the outcomes achieved by each participant.

11. STUDENTS' RIGHTS

Students taking part in the Mobility Programme shall have the right to obtain, at the home and host universities, the teaching and evaluation services corresponding to the subjects taken at each University, under the same conditions as other students at said University who are also taking said subjects.

Furthermore, students taking part in the Mobility Programme will have, at the host University, the same regime of rights and obligations as students who take part in the Erasmus Mobility Programme.

12. STUDENT MOBILITY

Students taking part in the programme will have to complete at least one academic year at the host University.

13. FINANCIAL MANAGEMENT

Pursuant to current legislation in each country, the parties pledge to secure the necessary resources to achieve the programme goals described above.

Regarding the rights of enrolment and certificate issuance, see points 9 and 10.

14. INSURANCE

1. The parties agree to provide students and faculty staff taking part in the double degree programme with useful information about the logistical organisation of their stay.

2. Each student must be covered by public liability insurance against possible accidents that might occur during the activities they carry out on University premises. In turn, each student, prior to the start of each stay, must have insurance in place, covering medical assistance and healthcare cover, as well as accidents and repatriation expenses.



15. GUARANTEE OF QUALITY

Each party establishes a system to evaluate the quality of the programme in order to ensure that the course maintains its high academic standard. A series of measures will be put into effect to evaluate the strategic advantages at all levels, in terms of social projection (mission), reputation, position (vision), to ensure they are in line with the certifications, target outcomes and subjects.

The academic programme for the recognition of qualifications and the services provided will be monitored, including graduate fees and graduate tracking, in accordance with internal and external evaluation criteria, involving the interested parties (stakeholders). The university study pathway will also be reviewed periodically for academic purposes.

16. INTELLECTUAL PROPERTY RIGHTS

Any scientific and technological outputs derived from the programme belong jointly to both institutions, unless agreed otherwise. The institutions pledge to protect and exploit said outputs in accordance with national intellectual property law and the current regulations in place at the respective institutions. Each party pledges to avoid any claiming of rights by persons or staff employed within the institutions, and to ensure the agile management of the results achieved.

17. CONFIDENTIALITY

Unless expressly authorised to do so, and in accordance with the obligations set out in this present agreement, the parties agree not to disclose any type of information provided. Regarding data protection, the laws of France and Spain shall be applied with regard to the confidentiality of personal data.

18. CONDITIONS

Students taking part in the programme must fulfil the requirements set out in Appendix 4.

19. ENTRY INTO EFFECT AND DURATION

This present agreement shall enter into effect the moment it is signed by both institutions, and it shall remain in force for 4 years, as of the 2019-2020 academic year. The two Universities may renew this present agreement, having received prior written approval from the relevant academic bodies, at least 3 months prior to its expiry.

20. MODIFICATION OF THE AGREEMENT

The parties may modify this present document in writing at any time by mutual agreement, and it must be signed by the legal representatives of both institutions.

21. TERMINATION OF THE AGREEMENT

This present agreement may be terminated under any of the following circumstances:

- by the mutual agreement of the convening parties,
- breach of the agreed obligations,



- the unilateral decision of one of the parties, sending express written notification to the other party and giving at least 3 months' notice.

If the agreement is denounced by one of the parties, the notice given must be in relation to the academic year in which the non-application of the programme is to be made effective.

22. LEGAL MATTERS

The parties agree to resolve amicably any issue that might arise in the interpretation of this present agreement. In the event that the disagreement cannot be resolved in the aforementioned way, an arbitrage committee shall be appointed, comprising one member designated by each of the parties, and another member chosen by mutual agreement. The committee shall manage possible complaints of the students participating in the programme. Students must at all times abide by local rules. If the institutions receive a complaint, the parties shall resolve the problem with the student, always in accordance with said rules.

In any case, the parties agree to complete the development of any actions already set in motion at the time notification of the complaint is made.

And in witness of all the above, the parties hereby sign this present document in duplicate, in France and in Spain, in the place and on the date indicated below, each University receiving two copies thereof.

In Seville, on

In Rennes, on

ON BEHALF OF Universidad Pablo de Olavide
Rector
Prof. Vicente C. Guzmán Fluja

ON BEHALF OF UNIVERSITÉ DE RENNES 1
President
Prof. David ALIS



ANNEXES TO THE AGREEMENT

ANNEXE 1: COMPLETE CURRICULAR PROGRAMME FOR BCGMP STUDENTS IN ORDER TO BE AWARDED THE BIOTECHNOLOGY DEGREE

ANNEXE 1.1: SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).

ANEXO 1.2: SUBJECTS PERFORMED IN HOST INSTITUTION (GBTG; UPO) AND RECOGNIZED IN HOME UNIVERSITY (BCGMP; UR1).

ANEXO 1.3: LIST OF SUBJECTS TO BE COMPLETED UPON BCGMP STUDENTS RETURN TO THEIR HOME INSTITUTION (UR1) IN ORDER TO BE AWARDED THE QUALIFICATION OF LICENCE MENTION SCIENCES DE LA VIE, PARCOURS BIOLOGIE CELLULAIRE, GÉNÉTIQUE, MICROBIOLOGIE, PHYSIOLOGIE ANIMALE (BCGMP).

ANNEXE 2: COMPLETE CURRICULAR PROGRAMME FOR UPO STUDENTS IN ORDER TO BE AWARDED THE BCGMP

ANNEXE 2.1: SUBJECTS PERFORMED IN HOME INSTITUTION (GBTG; UPO) AND RECOGNIZED IN HOST UNIVERSITY (BCGMP; UR1).

ANNEXE 2.2: SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOME UNIVERSITY (GBTG; UPO).

ANNEXE 2.3: LIST OF SUBJECTS TO BE COMPLETED UPON UPO STUDENTS RETURN TO THEIR HOME INSTITUTION (UPO) IN ORDER TO BE AWARDED THE QUALIFICATION OF BIOTECHNOLOGY DEGREE.

ANNEXE 3: TAXES AND ADDITIONAL CHARGES

ANNEXE 4: TECHNICAL ANNEXE

ANNEXE 1. COMPLETE CURRICULAR PROGRAMME FOR BCGMP STUDENTS IN ORDER TO BE AWARDED THE BIOTECHNOLOGY DEGREE

SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1)		SUBJECTS PERFORMED IN HOST INSTITUTION (UPO)	
Atomistique - Équilibres chimiques/ Equilibres chimiques dans l'eau	6 ECTS / 3 ECTS		
Bases de chimie organique	6 ECTS		
Compléments chimie	3 ECTS		
Biologie de la cellule	7 ECTS		
Organisation fonctionnelle de la cellule	6 ECTS		
Diversité et organisation du vivant	7 ECTS		
Bases de la génétique	6 ECTS		
Bactériologie générale	6 ECTS		
Fonctionnement de la Plante	6 ECTS		
Physiologie moléculaire des plantes et leurs interactions	3 ECTS		
BCA-biologie cellulaire appliquée	6 ECTS		
ICM-Immunologie cellulaire et moléculaire	6 ECTS		
Éthologie et physiologie animale	3 ECTS		
		Virología	4,5 ECTS Ob
Physique pour le vivant	6 ECTS		
Mathématiques 1	6 ECTS		
Mathématiques 2	3 ECTS		
ST-1 Apprentissages statistiques	6 ECTS		
Atelier de biostatistiques 1	3 ECTS		
BG-1 Bioinformatique et génomique	3 ECTS		
		Técnicas y Análisis instrumental (English)	6 ECTS OB
		Análisis Biómico	6 ECTS OB
Biomolécules	5 ECTS		
Biochimie structurale et enzymologie	6 ECTS		
Métabolismes énergétiques	6 ECTS		
GAP Génétique appliquée	6 ECTS		
		Fisiología y metabolismo Microbiano (English)	4,5 ECTS OB
		Genética molecular (English)	4,5 ECTS OB
CTM-Développement du médicament (6 ECTS)	6 ECTS		

SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1)		SUBJECTS PERFORMED IN HOST INSTITUTION (UPO)	
		Biotechnología Vegetal	4,5 ECTS OB
		Biotechnología Animal	4,5 ECTS OB
		Biotechnología Microbiana	4,5 ECTS OB
		Biorreactores	6 ECTS OB
		Operaciones Básicas	4,5 ECTS OB
		Operaciones de separación	4,5 ECTS OB
		Procesos biotecnológicos	6 ECTS OB
		Fundamentos de Ingeniería	6 ECTS OB
Projet professionnel de l'étudiant	3 ECTS		
PM1-Préparer l'après-master 1	3 ECTS		
PM2- Préparer l'après-master 2	3 ECTS		
Stage	6 ECTS		
BIN-Biologie aux interfaces	6 ECTS		
Anglais	3 ECTS		
Plan d'organisation animal et développement	3 ECTS		
Introduction à la génétique moléculaire	6 ECTS		
Bases écoenvironnementales	5 ECTS		
BAP_ Biochimie appliquée	6 ECTS		
TOTAL	174 ECTS BCGMP	66 ECTS (UPO)	240 ECTS

ANNEXE 1.1 SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).

SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1)

Subject (BCGMP; UR1)	ECTS (BCGMP; UR1)	Course (BCGMP; UR1)	Semester (BCGMP; UR1)	ECTS RECOGNIZED IN HOST UNIVERSITY (UPO).
Atomistique - Équilibres chimiques	6	1	1	6 ECTS Básicos
Equilibres chimiques dans l'eau	3	1	1	3 ECTS Obligatorios
Compléments chimie	3	1	2	3 ECTS Obligatorios
Biologie de la cellule	7	1	2	5,5 ECTS Obligatorios +1,5 ECTS Optativos
Diversité et organisation du vivant	7	1	1	6 ECTS Básicos +1 ECTS Optativos
Éthologie et physiologie animale	3	1	2	3 ECTS Básicos
Physique pour le vivant	6	1	1	6 ECTS Básicos
Mathématiques 1	6	1	1	6 ECTS Básicos
Mathématiques 2	3	1	2	3 ECTS Básicos
Biomolécules	5	1	1	3 ECTS Optativos + 2 Obligatorios
Projet professionnel de l'étudiant	3	1	2	3 ECTS Obligatorios
Bases écoenvironnementales	5	1	2	5 ECTS Optativos
Bases de chimie organique	6	2	1	6 ECTS Básicos
Organisation fonctionnelle de la cellule	6	2	1	6 ECTS Básicos
Bases de la génétique	6	2	2	6 ECTS Básicos
Bactériologie générale	6	2	2	6 ECTS Básicos
Fonctionnement de la Plante	6	2	2	6 ECTS Básicos

Physiologie moléculaire des plantes et leurs interactions	3	2	1	3 ECTS Básicos
Atelier de biostatistiques 1	3	2	2	3 ECTS Básicos
Biochimie structurale et enzymologie	6	2	1	6 ECTS Básicos
Métabolismes énergétiques	6	2	2	6 ECTS Básicos
Plan d'organisation animal et développement	3	2	1	3 ECTS Optativos
Introduction à la génétique moléculaire	6	2	1	6 ECTS Optativos
BCA-biologie cellulaire appliquée	6	4	1	4,5 ECTS Obligatorios + 1,5 ECTS Básicos
ICM-Immunologie cellulaire et moléculaire	6	4	2	4,5 ECTS Básicos + 1,5 ECTS Optativos
ST-1 Apprentissages statistiques	6	4	1	6 ECTS Básicos
BG-1 Bioinformatique et génomique	3	4	1	3 ECTS Obligatorios
GAP Génétique appliquée	6	4	2	6 ECTS Obligatorios
CTM-Développement du médicament	6	4	2	3 ECTS Optativos + 3 Obligatorios
PM1-Préparer l'après-master 1	3	4	1	3 ECTS Obligatorios
PM2- Préparer l'après-master 2	3	4	2	3 ECTS Básicos
BAP_ Biochimie appliquée	6	4	1	6 ECTS Optativos

SUBJECTS RECOGNIZED IN HOST UNIVERSITY (UPO).

SUBJECT	
Química General	6 ECTS Básicos
Química Orgánica	6 ECTS Básicos
Termodinámica y Cinética Química	6 ECTS Obligatorios
Biología Celular	6 ECTS Básicos
Biología Animal y Vegetal	6 ECTS Básicos
Genética	6 ECTS Básicos
Microbiología	6 ECTS Básicos
Fisiología Vegetal	6 ECTS Básicos
Inmunología	4,5 ECTS Obligatorios
Fisiología Animal	6 ECTS Básicos
Física	6 ECTS Básicos
Álgebra y Fundamentos de Análisis	6 ECTS Básicos
Análisis matemático	6 ECTS Básicos
Informática	6 ECTS Básicos
Bioestadística	4,5 ECTS Básicos
Bioinformática	6 ECTS Obligatorios
Bioquímica: biomoléculas	6 ECTS Básicos
Bioquímica (Metabolismo y su regulación)	6 ECTS Básicos
Ingeniería Genética	6 ECTS Obligatorios
Cultivos Celulares	4,5 ECTS Obligatorios
Organización y Gestión de Proyectos	4,5 ECTS Obligatorios
Aspectos éticos y legales de la Biotecnología	4,5 ECTS Obligatorios
Economía y gestión de empresas	4,5 ECTS Básicos
Optativa I (Recursos Animales y Vegetales en Biotecnología)	6 ECTS Optativos
Optativa IV	6 ECTS Optativos
Optativa III	6 ECTS Optativos
Optativa V (Química e Ingeniería de Proteínas)	6 ECTS Optativos
Optativa II	6 ECTS Optativos

SUMMARY OF SUBJECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).

ECTS RECOGNIZED	
CORE ECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).	93
COMPULSORY ECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).	36
OPTATIVES ECTS PERFORMED IN HOME INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOST UNIVERSITY (UPO).	30
TOTAL	159

BCGMP students, upon their return to their home institution (UR1) will have to register and take during the fourth year the subject of STAGE (6ECTS), BIN-Biologie aux interfaces (6 ECTS), e Anglais (3 ECTS), that is recognized by Final Degree Project (15 ECTS) corresponding to the degree of Biotechnology of the UPO (Code 202106). UR1 students will prepare a report that will be defended online at UNIVERSITÉ DE RENNES 1 and Pablo Olavide University, Seville. The Court will be composed of professors from the UR1 and UPO (ANNEXE 1.4).

Subject	ECTS	Course	Semester
Stage	6	4	2
BIN-Biologie aux interfaces	6	4	2
Anglais	3	4	2
TOTAL	15		

TOTAL	174 ECTS
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**TOTAL****ANNEXE 1.2 SUBJECTS PERFORMED IN HOST INSTITUTION (GBTG; UPO) AND RECOGNIZED IN HOME UNIVERSITY (BCGMP; UR1).**

UR1 students enrolled in the License mention Sciences de la vie, parcours Biologie cellulaire, génétique, microbiologie, physiologie animale will study the UPO subjects that are detailed below to obtain the Degree in BIOTECHNOLOGY

UPO	ECTS	Course	Semester
Técnicas y Análisis instrumental (English)	6 ECTS Obligatorios	3	2
Genética molecular (English)	4,5 ECTS Obligatorios	2	2
Fisiología y metabolismo Microbiano (English)	4,5 ECTS Obligatorios	2	2
Biología Animal	4,5 ECTS Obligatorios	4	1
Biorreactores	6 ECTS Obligatorios	3	2
Operaciones Básicas	4,5 ECTS Obligatorios	3	1
Operaciones de separación	4,5 ECTS Obligatorios	3	1
Procesos Biotecnológicos	6 ECTS Obligatorios	4	1
Biología Microbiana	4,5 ECTS Obligatorios	3	1
Biología Vegetal	4,5 ECTS Obligatorios	3	1
Análisis Biómico	6 ECTS Obligatorios	3	2
Fundamentos de Ingeniería Bioquímica	6 ECTS Obligatorios	2	2
Virología	4,5 ECTS Obligatorios	2	2

ECTS PERFORMED	
COMPULSORY ECTS PERFORMED IN HOST UNIVERSITY (UPO) AND RECOGNIZED IN HOME INSTITUTION (BCGMP; UR1)	66 ECTS

SUBJECTS RECOGNIZED IN HOME UNIVERSITY (BCGMP; UR1).

BCGMP (Rennes1)	ECTS
IMZ: Interactions moléculaires et Enzymologie	6
CEG : Controle de l'expression genetique	6
PHB: Physiologie bacterienne	6
3 English.	3
PAI Physiologie animale Intégrée	3
NER: Communication nerveuse et excitabilité	3
APM: Applications en Microbiologie	6
IVA: Immunologie Virologie applications	6
BVF : Biotechnologies végétale et fongique	6
EUC : Génétique eucaryote	6
<u>STG</u> Stage 6 ECTS max	6
Atelier de biostatistiques 2	3
TOTAL	60



ANNEXE 1.3 LIST OF SUBJECTS TO BE COMPLETED UPON BCGMP STUDENT'S RETURN TO THEIR HOME INSTITUTION (UR1) IN ORDER TO BE AWARDED THE QUALIFICATION OF LICENCE MENTION SCIENCES DE LA VIE, PARCOURS BIOLOGIE CELLULAIRE, GÉNÉTIQUE, MICROBIOLOGIE, PHYSIOLOGIE ANIMALE (BCGMP).

UR1 students when they return from their year of study in UPO must take the following subjects to obtain the degree of BCGMP

- 1) Anglais 1- 3 ECTS
- 2) Anglais 2 - 3 ECTS
- 3) Anglais 4- 3 ECTS

ANNEXE 1.4 BCGMP students, upon their return to their home institution (UR1) will have to register and take during the fourth year the subject of STAGE (6ECTS), BIN-Biologie aux interfaces (6 ECTS), e Anglais (3 ECTS), that is recognized by Final Degree Project (15 ECTS) corresponding to the degree of Biotechnology of the UPO (Code 202106). UR1 students will prepare a report that will be defended online at UNIVERSITÉ DE RENNES 1 and Pablo Olavide University, Seville. The Court will be composed of professors from the UR1 and UPO.

ANNEXE 2. COMPLETE CURRICULAR PROGRAMME FOR UPO STUDENTS IN ORDER TO BE AWARDED THE BCGMP

SUBJECTS PERFORMED IN HOME INSTITUTION (UPO)		SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1)	
Química General	6 ECTS Básica		
Química Orgánica	6 ECTS Básica		
Biología Celular	6 ECTS Básica		
Biología Animal y Vegetal	6 ECTS Básica		
Genética	6 ECTS Básica		
Física	6 ECTS Básica		
Álgebra y Fundamentos de Análisis	6 ECTS Básica		
Análisis matemático	6 ECTS Básica		
Informática	6 ECTS Básica		
Ingeniería Genética	6 ECTS Obligatoria		
Fundamentos de Ingeniería Bioquímica	6 ECTS		
Bioquímica: biomoléculas	6 ECTS Básica		
Bioquímica (Metabolismo y su regulación)	6 ECTS Básica		
Microbiología	6 ECTS Básica		
Termodinámica y Cinética Química	6 ECTS Obligatoria		
Fisiología Vegetal	6 ECTS Básica		
Virología	4,5 ECTS Obligatoria		
Fisiología y metabolismo Microbiano	4,5 ECTS Obligatoria		
Bioestadística	4,5 ECTS Básica		
Genética Molecular	4,5 ECTS Obligatoria		
Optativa I (Recursos Animales y Vegetales en Biotecnología)	6 ECTS Optativa		
Optativa V (Química e Ingeniería de Proteínas)	6 ECTS Optativa		
		NER Physiologie animale intégrée et communication nerveuse PAI physiologie animale intégrée	3 ECTS 3 ECTS

SUBJECTS PERFORMED IN HOME INSTITUTION (UPO)		SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1)	
		CEG Contrôle de l'expression génétique chez les eucaryotes	6 ECTS
		APM Applications en microbiologie	6 ECTS
		STG Stage	6 ECTS
		BEG Bioinformatique et génomique	6 ECTS
		EUCbis Eucaryot genetics	6 ECTS
		IVAbis Immunology, virology and application	6 ECTS
		APObis Cell cycle, apoptosis and aging	6 ECTS
		IMZ Bis Molecular Interactions and enzymology	6 ECTS
		RGP -Génétique et régulation de l'expression des gènes chez les procaryotes	6 ECTS
TOTAL	126 (GBTG, UPO)	60 (BCGMP, UR1)	186 ECTS (BCGMP, UR1)

ANNEXE 2.1 SUBJECTS PERFORMED IN HOME INSTITUTION (GBTG; UPO) AND RECOGNIZED IN HOST UNIVERSITY (BCGMP; UR1).

SUBJECTS PERFORMED IN HOME INSTITUTION (GBTG; UPO)

SUBJECTS (GBTG; UPO)	
Química General	6 ECTS Básica
Química Orgánica	6 ECTS Básica
Biología Celular	6 ECTS Básica
Biología Animal y Vegetal	6 ECTS Básica
Genética	6 ECTS Básica
Física	6 ECTS Básica
Álgebra y Fundamentos de Análisis	6 ECTS Básica
Análisis matemático	6 ECTS Básica
Informática	6 ECTS Básica
Ingeniería Genética Fundamentos de Ingeniería Bioquímica	6 ECTS Obligatoria 6 ECTS
Bioquímica: biomoléculas	6 ECTS Básica
Bioquímica (Metabolismo y su regulación)	6 ECTS Básica
Microbiología	6 ECTS Básica
Termodinámica y Cinética Química	6 ECTS Obligatoria
Fisiología Vegetal	6 ECTS Básica
Virología	4,5 ECTS Obligatoria
Fisiología y metabolismo Microbiano	4,5 ECTS Obligatoria
Bioestadística	4,5 ECTS Básica
Genética Molecular	4,5 ECTS Obligatoria
Optativa I (Recursos Animales y Vegetales en Biotecnología)	6 ECTS Optativa
Optativa V (Química e Ingeniería de Proteínas)	6 ECTS Optativa
TOTAL	126 ECTS

**SUBJECTS RECOGNIZED IN HOST UNIVERSITY (BCGMP; UR1).**

SUBJECT (BCGMP; UR1)	
Atomistique - Équilibres chimiques	6 ECTS
Equilibres chimiques dans l'eau	3 ECTS
Bases de chimie organique	6 ECTS
Biologie de la cellule	7 ECTS
Organisation fonctionnelle de la cellule	6 ECTS
Diversité et organisation du vivant	7 ECTS
Bases de la génétique	6 ECTS
Physique pour le vivant	6 ECTS
Mathématiques 1	6 ECTS
Mathématiques 2	3 ECTS
Atelier de Biostatistiques 2	3 ECTS
Bases écoenvironnementales	5 ECTS
Génie génétique	6 ECTS
Biomolécules	5 ECTS
Biochimie structurale et enzymologie	6 ECTS
Métabolismes énergétiques	6 ECTS
Bactériologie générale	6 ECTS
Compléments chimie	3 ECTS
Fonctionnement de la Plante	6 ECTS
Physiologie moléculaire des plantes et leurs interactions	3 ECTS
Toxicologie, Biologie cellulaire et Biochimie en Nutrition Santé	6 ECTS
PHB: Physiologie bacterienne	6 ECTS
Atelier de biostatistiques 1	3 ECTS
Introduction à la génétique moléculaire	6 ECTS
Plan d'organisation animal et développement	3 ECTS
Ethologie et physiologie animale	3 ECTS
Project professionnel de l'étudiant	3 ECTS
TOTAL	135 ECTS

ANNEXE 2.2 SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1) AND RECOGNIZED IN HOME UNIVERSITY (GBTG; UPO).

SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1)

SUBJECTS PERFORMED IN HOST INSTITUTION (BCGMP; UR1)	
NER Physiologie animale intégrée et communication nerveuse	3 ECTS
PAI physiologie animale intégrée	3 ECTS
CEG Controle de l'expression génétique chez les eucaryotes	6 ECTS
APM Applications en microbiologie	6 ECTS
STG Stage	6 ECTS
BEG Bioinformatique et génomique	6 ECTS
EUCbis Eucaryot genetics	6 ECTS
IVAbis Immunology, virology and application	6 ECTS
APObis Cell cycle, apoptosis and aging	6 ECTS
IMZ Bis Molecular Interactions and enzymology	6 ECTS
RGP -Génétique et régulation de l'expression des gènes chez les procaryotes	6 ECTS
TOTAL	60

SUBJECTS RECOGNIZED IN HOME UNIVERSITY (GBTG; UPO).

SUBJECTS RECOGNIZED IN HOME UNIVERSITY (GBTG; UPO).	
Fisiología Animal	6 ECTS Básica
Biología Vegetal	4,5 ECTS Obligatoria
Biología Microbiana	4,5 ECTS Obligatoria
Técnicas y Análisis Instrumental	6 ECTS Obligatoria
Optativa III (Farmacología y Toxicología)	6 ECTS
Bioinformática	6 ECTS Obligatoria
Análisis Biómico	6 ECTS Obligatoria
Optativa II (Ingeniería farmacéutica y diseño de los medicamentos)	6 ECTS optativa
Optativa I (Química Bioanalítica)	6 ECTS optativa
Optativa III (Biología ambiental)	6 ECTS Optativa
Optativa IV (Biología de Alimentos)	6 ECTS optativa
Optativa III (Farmacología y Toxicología)	6 ECTS optativa
TOTAL	69



ANNEXE 2.3 LIST OF SUBJECTS TO BE COMPLETED UPON UPO STUDENTS RETURN TO THEIR HOME INSTITUTION (UPO) IN ORDER TO BE AWARDED THE QUALIFICATION OF BIOTECHNOLOGY DEGREE.

UPO students when they return from their year of study in UR1 must take the following subjects to obtain the degree of Biotechnology

Asignaturas	Créditos
Operaciones Básicas	4,5 ECTS Obligatoria
Operaciones de Separación	4,5 ECTS Obligatoria
Biorreactores	6 ECTS Obligatoria
Procesos Biotecnológicos	6 ECTS Obligatoria
Inmunología	4,5 ECTS Obligatoria
Biotecnología Animal	4,5 ECTS Obligatoria
Cultivos Celulares	4,5 ECTS Obligatoria
Organización y Gestión de Proyectos	4,5 ECTS Obligatoria
Economía y Gestión de Empresas	6 ECTS Obligatoria
Aspectos Éticos y Legales de la Biotecnología	4,5 ECTS Obligatoria
Trabajo Fin de Grado	15 ECTS Obligatoria
TOTAL	64.5

ANNEXE 2.4 SUMMARY OF SUBJECTS PERFORMED BY UPO STUDENTS IN UPO AND UR1 IN ORDER TO OBTAIN THE DOUBLE DEGREE: LICENCE MENTION SCIENCES de la VIE, PARCOURS BIOLOGIE CELLULAIRE, GÉNÉTIQUE, MICROBIOLOGIE, PHYSIOLOGIE ANIMALE (BCGMP) FROM UNIVERSITÉ DE RENNES 1 AND GRADO EN BIOTECNOLOGÍA FROM UNIVERSIDAD PABLO DE OLAVIDE, SEVILLE.

SUMMARY	
ECTS PERFORMED IN HOME INSTITUTION (UPO)	190.5
ECTS PERFORMED IN HOST UNIVERSITY (UR1).	60
TOTAL	250.5



ANNEXE 3

TAXES AND ADDITIONAL CHARGES

Regarding to Article 10 of this Agreement, the following is specified:

Students enrolled in the UPO who participate in this mobility program will be exempt from paying tuition at the University of Rennes 1, however they will have to pay any administrative payments in UR1, which are included in its current regulations.

In the case of students enrolled in the BCGMP who participate in the mobility program, they will be exempt from paying tuition at the UPO. However, they will pay the following expenses foreseen in the Annual Public Price Decree of the Ministry of Economy, Innovation, Science and Employment for the academic year 2018-2019, which will be applicable except for subsequent modifications.

Seguro escolar	1,12 euros
Apertura de expediente	59,10 euros
Tarjeta de identidad	5,70 euros
Certificaciones académicas y traslados de expedientes académicos	26,30 euros
Expedición de títulos académicos de Grado	133,40 euros
TOTAL	225,62 euros

All other personal expenses that students may incur during their stay at the destination university, such as a possible visa, travel, accommodation and food will be borne by the student. The destination university may request from the structures with signed agreement, reduced rates for students participating in the mobility program, both for access to university residences and for access to university canteens.



ANNEXE 4 ANEXO TÉCNICO

Title of the program _____

DOBLE TÍTULO LICENCE MENTION SCIENCES de la VIE, PARCOURS BIOLOGIE CELLULAIRE, GÉNÉTIQUE, MICROBIOLOGIE, PHYSIOLOGIE ANIMALE (BCGMP) FROM UNIVERSITÉ DE RENNES1 AND GRADO EN BIOTECNOLOGÍA DE LA UNIVERSIDAD PABLO DE OLAVIDE, DE SEVILLA

Institutions that participate: _____

Universidad de Rennes 1 y Universidad Pablo de Olavide

Program coordinators:

On behalf of the Pablo de Olavide University: Profa. Menta Ballesteros

On behalf of the Rennes1 University: Prof. Noureddine Boujrad

Start date:

Academic year 2019/2020

Official duration of the program for each student:

4 years

Number of students participating in the program: _____

5 from each University

In the following years, the number of participants by agreement of the parties may be modified.

Academic calendar

The academic calendar varies annually and is published on the official page of the Faculty of Experimental Sciences of the UPO (www.upo.es) and that of the University of Rennes 1 (<https://www.univ-rennes1.fr/>).

Concerning to the UPO, the academic year usually begins in mid-September. The period of scheduled classes for the first semester ends in December. Scheduled classes for the second semester usually begin the last week of January and end in mid-May. Calls of exam by subject: two ordinary calls plus one extraordinary calls.

Regarding to the UR1 University, the first semester begins on the first monday of September, and ends before the Christmas holidays. The second semester begins after the first call for exams and ends the last week of April. In UR1 there are two ordinary calls of exam by course

Program description:

The French university system is based on a first cycle of studies with a duration of three years of 180 credits (License) and a second cycle of two years, normally of 120 credits, (master). The Spanish university system consists for a first cycle of studies, Degree, which normally has four years (240 credits) and gives access to the master's degree.

To elaborate this proposal, we have worked with the License Mention Sciences de la Vie, Parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale (BCGMP) of the French system (UR1) and with the Degree in Biotechnology (GBTG) of the Spanish system.

After comparing the curricula of the License Mention Sciences de la Vie, Parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale (BCGMP), of the University of Rennes 1, with the Biotechnology curriculum (GBTG), of the Pablo Olavide University, from Seville, it has developed the curricular plan of the joint degree that is detailed in Annexes 1 and 2.



In general, a curricular plan has been prepared that, integrating the competences and contents of the curricula of the two universities, guarantees that the students have the requirements necessary to obtain both degrees (BCGMP and GTG).

Objetives:

1. To offer students of the Biotechnology Degree of the UPO, who have already passed their first two years of this degree, the opportunity to study at the University of Rennes 1 a third course of the BCGMP in France and thus obtain the License Mention Sciences de la Vie, Parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale (BCGMP). Back to Spain, the students continue with their Biotechnology studies to study fourth / fifth and achieve the Degree in Biotechnology by the UPO.
 2. Offer the opportunity to students of the BCGMP, who have already passed the second year of this license, to take a third year of the Degree in Biotechnology at the UPO to be able to aspire to to achieve the Degree in Biotechnology by the UPO. Back in France, the students continue at the University of Rennes 1 to complete their master studies. Once they have completed their bachelor's and master's degree studies, Rennes students obtain the Degree in Biotechnology from the UPO and the degree of License Mention Sciences de la Vie, Parcours Biologie Cellulaire, Genetique, Microbiologie, Physiologie Animale (BCGMP) of the University of Rennes 1.
-

Access requirements:

The call for access will come out in the second year, at the same time as the ERASMUS calls, publishing the provisional results of admitted during the second semester, and the final selection after checking that the student has passed first and second years.

Interviews at the host University will be carried out, through on-line conferences if necessary

UPO students:

To have passed all first and second of the Biotechnology degree before taking a third course at the University of Rennes 1.

The student must have an average mark of, at least, 6/10 according to the UPO qualifications to access this program.

Have a level of B2 English and B2 French according to official certificate tables accepted by Andalusian public universities for the accreditation of foreign languages and their correspondence with the Common European Framework of Reference for Languages

https://www.upo.es/idiomas/export/sites/si/pdf/TABLAS_DE_CERTIFICADOS_ACEPTADOS_POR_UNIVERSIDAD_ES_ANDALUZAS_12_junio_2018.pdf

BCGMP students:

Have approved all first and second of the Licence mention Sciences de la Vie, Parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale (BCGMP) before taking third in the UPO.

The student must have an average mark of, at least, 12/20 according to the qualifications of the UR1 to access this program.

Have a B2 level of English and B2 of Spanish to the tables of official certificates accepted by the Andalusian public universities for the accreditation of foreign languages and their correspondence with the common European frame of reference for languages

https://www.upo.es/idiomas/export/sites/si/pdf/TABLAS_DE_CERTIFICADOS_ACEPTADOS_POR_UNIVERSIDAD_ES_ANDALUZAS_12_junio_2018.pdf

Requisitos de permanencia:

The coordinators of the host and home Universities will supervise the students of the program.
The compensation of qualifications will follow the regulations of the host university.

UPO students:

To obtain the degree of Mention Sciences License of the Fri, Parcours Biologie Cellulaire, Génétique, Microbiologie, Physiologie Animale (BCGMP), the student has to pass all the subjects included in Annexe 2.2.

According to the regulations of the University of Rennes1, students are evaluated by final exam at the end of each semester. The minimum qualification required to pass is 10/20. Students can compensate their grades between subjects (course units) and between semesters. The final grade in the compensated subjects will be the average among the compensated units.

BCGMP students:

To obtain the Biotechnology Degree from the Pablo de Olavide University, the student must pass all the subjects included in Annexe 1.2

For all students who participate in the program:

- 1) In case of failure subjects at the destination, the student who would like to recover these subjects, they will have the opportunity to re-examine themselves at the host university during the following academic year, previously informing the coordinators and paying the corresponding expenses in both universities (host and home). The exams should take place at the home University, based on subjects provided by the host University.
- 2) The student will be evaluated according to the host University grading system.
- 3) The student who does not achieve the objectives of the program (obtaining the degree at the host University) can resign, presenting a request addressed to those responsible for the program (Prof. Menta Ballesteros and Prof. Noureddine Boujrad). In this case, the approved subjects according to the correspondences established in the annexes will be recognized.

Grading system and their equivalences:

	F	E	D	C	B	A
UPO	0,0-4,9	5,0-5,9	6,0-6,9	7,0-7,9	8,0-8,9	9,0-10
UR1	0,0-9,9	10,0-10,9	11,0-11,9	12,0-13,9	14,0-15,9	16,0-20

UR1 students during their year at UPO will be able to achieve the honor qualification grade in accordance with current regulations.

The UPO students during their year in UR1 who have obtained a qualification equivalent to 9 or higher in UPO, may get the mention of honorary registration, if they have the requirements of the regulations of evaluation of the undergraduate students of the Pablo de Olavide University

Final Project (TFG) to get biotechnology degree:

The students of the UNIVERSITÉ DE RENNES1 (BCGMP), on the way back, will have to register and take the STAGE course during their Master that will be validated by Final Degree Project (15 ECTS) corresponding to the UPO Biotechnology degree (Code 202037). Thus, they will elaborate a memory that will be defended online at the UNIVERSITÉ DE RENNES 1 and at the Pablo Olavide University, Seville. The Court will be composed of professors from the UR1 and UPO.