

Double Degree in Physics and Liberal Arts & Sciences (DDLP)

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1. Introduction to the Programme

The Double Degree in Physics and Liberal Arts and Sciences (DDLP) is a unique programme and opportunity. You will learn about the fundamental principles and laws that govern our physical world, all in the context of a Liberal Arts and Sciences education, which promotes interdisciplinary perspectives and knowledge. The DDLP is made possible through the collaboration of University College Utrecht (UCU), the pioneer liberal arts education college in the Netherlands, and the internationally recognised Department of Physics of University Utrecht (UUDP).

After completion of this programme you will have two fully accredited bachelor degrees*, one in Liberal Arts and Sciences, and one in Physics. You will also be very well prepared to apply to all the master's programmes in Physics at University Utrecht, or elsewhere. Because this programme also offers the opportunity to study other subjects, you will also be eligible to apply for other postgraduate programmes in areas such as: sustainable development, energy science and astronomy.

The time needed to complete the DDLP is three and a half to four years. This means that in addition to the three required years at UCU, the extra time needed is 6 months to one year.

For further queries about this double degree please contact the programme coordinator Dr. Filipe Freire, Cluster 1, UCU, Tel: +31 (030) 253 9825, Email: f.freire@uu.nl.

2. Admission

Any UCU student who fulfils the admission requirements for the three DDLP compulsory Level 1 courses listed at the top of the **Overview 1** table in the next section.

* Note that a one-year pre-master's programme in physics does not accredit a diploma and might be tailored for a specific master's programme.

3. The DDLP requirements

The total number of credits required to complete the DDLP is 120 ECTS. Required courses are at both UCU and UUDP. The breakdown of these courses in physics and mathematics is shown in the overview tables below. **Overview 1** lists courses at UCU and **Overview 2** lists courses at the Department of Physics.

Overview 1

Compulsory courses for DDLP at UCU (total credits = 67.5 ECTS)			
Level	Course Code	Courses	ECTS
1	UCSCIPHY12	Relativistic and Classical Physics	7.5
1	UCSCIMAT11	Calculus and Linear Algebra	7.5
1	UCSCIPHY14	Wave Phenomena in Nature - Enhanced	7.5
2	UCSCIMATL2	Computational Physics (Lab Module)	2.5
2	UCSCIPHYL8	Waves and Optics (Lab Module)	2.5
2	UCSCIPHY26	Classical Electrodynamics – Enhanced	7.5
2	UCSCIMAT21	Mathematical Methods	7.5
2	UCSCIPHY25	Statistical Mechanics and Foundations of Quantum Mechanics	7.5
2	UCSCIMAT23	Analysis and Algebra *	7.5
2	UCSCIPHYL4	Experimental Statistical Mechanics (Lab Module)	2.5
3	UCSCIPHY31	Advanced Physics	7.5

* from 2021-2022 this new mathematics course replaces the 3 lab modules, UCSCIMATL5 Dynamical Systems, UCSCIMATL3 Group Theory, and UCSCIMATL6 Complex Analysis.

Overview 2

Compulsory elective course at UUDP - 1 out of 2 (total credits = 7.5 ECTS)			
Level	Course Code	Courses	ECTS
2	NS-265B	Fluid Dynamics & Transport Phenomena	7.5
2	NS-266B	Structure of Matter	7.5

Four Level 3 elective courses at UUDP (total credits = 30 ECTS)			
Level	Course Code	Courses	ECTS
3	NS-3XXB	Four Elective Courses	4 x 7.5
<i>Possible Elective Courses as in OER, Bijlage E, Overzicht 2.</i>			

Research Project at UUDP (total credits = 15 ECTS)			
Level	Course Code	Courses	ECTS
3	NS-310B	Research Project (BONZ)	15
<i>The Bachelor's Research Project consists of conducting research, supervised by one of the staff members of the Department of Physics.</i>			

4. A possible Physics Double Degree Timeline

The choice of courses shown in the table below is an optimal one for students starting in Fall, but deviations from this plan are possible. You will see in the table that there is plenty of time to study other courses outside the DDLP required subjects. This spaces are marked Course X.

Year 1

Sem 1 Sep-Dec	Research in context Level-1	HUM req. Level-1	Rel. & Class. Mechanics UCSCIPHY12	Calculus & Lin. Algebra UCSCIMAT11 (also in Spring)
Winter				
Sem 2 Feb-May	SSC req. Level-1	Language + Culture req.	Wave Phenomena in Nature UCSCIPHY14	Course X
Summer	UCSCIMATL2	UCSCIPHYL8		

Year 2

Sem 3 Sep-Dec	Electrodynamics UCSCIPHY26	Mathematical Methods UCSCIMAT21	Course X	Course X
Winter				
Sem 4 Feb-May	Stat Mech & Quant UCSCIPHY25	Analysis and Algebra UCSCIMAT23	Course X	Course X
Summer	SCI Lab X	SCI Lab X		

Year 3

Sem 5 Sep-Dec	Advanced Physics UCSCIPHY31	UCSCIPHYL4 UU in Block 1	Course X	Course X	Course X
Winter					
Sem 6 # Feb-May	Course X	Course X	NS-265B or NS-266B in UU Block 3	Course X	
Summer	SCI Lab X	SCI Lab X			

Year 4

Sem 7 Sep-Dec	NS-3XXB in UU Block 1	NS-3XXB in UU Block 1		
	NS-3XXB in UU Block 2	NS-3XXB in UU Block 2		
Sem 8 Feb-May	Graduation Thesis (15 EC) in B3 and B4	Course X	Course X	

Table colour scheme

salmon: UCU DDLP required courses

blue: courses offered by UUDP

grey: UCU breadth requirement courses