

Pre-Honours Optional Courses 2011/12

Students are eligible to select courses from all around the University, provided that they satisfy any pre-requisite requirements of that course, and that course does not have timetable clashes with any of their compulsory courses.

One factor that students may wish to consider when choosing courses is the opportunity to keep open the option of degree transfers at the end of 1st or 2nd year, either to a different flavour of physics, or a completely different degree. To assist with this, summarised below are the outside course options that would need to be chosen to satisfy the DPTs of different degrees within the University.

Following this is a listing of outside options which are commonly chosen by Physics students, along with details of any pre-requisites.

This can be used as a guide, but is far from a complete listing of options. Attention will also need to be paid to timetable compatibility.

For a complete list of available courses and details of Degree Programme Tables, see: www.drps.ed.ac.uk.

For timetable data see: www.timetab.ed.ac.uk

Degree	Required Courses	Code	Credit	Year	Sem.	Pre-requisites / comments
Computational Physics	Informatics 1: Computation & Logic	INFR08012	10	1	S1	Must take INFR08013 in parallel
	Informatics 1: Functions & Programming	INFR08013	10	1	S1	Must take INFR08012 in parallel
	Computer Simulation	PHYS08026	20	2	S2	
Physics with Meteorology	Meteorology: Atmosphere and Env.	METE08001	20	2	S1	
	Meteorology: Weather and Climate	METE08002	20	2	S2	
Physics with Music	Musical Acoustics	PHYS08021	20	1	S1	
	Music 1B: Music and Technologies	MUSI08012	20	1	S2	
	2 of Music 2A	MUSI08031	20	2	S1	
	Music 2B	MUSI08033	20	2	S2	
	Music 2C	MUSI08050	20	2	Y	
Maths & Physics or Mathematics	Introduction to Linear Algebra	MATH08057	20	1	S1	These three courses taken instead of or as well as MfP1/2, by suitable qualified students; cf. Theoretical Phys degree.
	Calculus and its Applications	MATH08058	20	1	S2	
	Proofs and Problem Solving	MATH08059	20	1	S2	
Geophysics	Earth Dynamics	EASC08001	20	1	S1	
	Intro to Geophysics	EASC08008	20	1	S2	
	Stratigraphy and Sedimentology	EASC08015	20	2	S1	Earth Dyn recommended
	Physics of the Earth	EASC08016	20	2	S2	Intro to Geophysics recommended
Chemical Physics	Chemistry 1A	CHEM08016	20	1	S1	Meet entrance requirements of Chemistry
	Chemistry 1B	CHEM08017	20	1	S2	Chem 1A
	Either Chemistry 2	CHEM08019	40	2	Y	Chem 1A and 1B
	or Physical Chemistry 2	CHPH08001	20	2	Y	Chem 1A and 1B
Chemistry	Chemistry 1A	CHEM08016	20	1	S1	Meet entrance requirements of Chemistry
	Chemistry 1B	CHEM08017	20	1	S2	Chem 1A
	Chemistry 2	CHEM08019	40	2	Y	Chem 1A and 1B
Civil Engineering	Engineering 1	SCEE08001	20	1	S1	
	Civil Engineering 1	CIVE08001	20	1	S2	Eng 1
Mechanical Engineering	Engineering 1	SCEE08001	20	1	S1	
	Mechanical Engineering 1	MECE08007	20	1	S2	Eng 1
Electrical Eng Or Electronics	Engineering 1	SCEE08001	20	1	S1	
	Electrical Engineering 1	ELEE08001	20	1	S2	
Computer Sci or Informatics	Informatics 1: Computation & Logic	INFR08012	10	1	S1	Must take INFR08013 at same time
	Informatics 1: Functions & Programming	INFR08013	10	1	S1	Must take INFR08012 at same time
	Informatics 1: Object Oriented Program.	INFR08014	10	1	S2	INFR08012 & 08013; 08015 at same time
	Informatics 1: Data and Analysis	INFR08015	10	1	S2	INFR08012 & 08013; 08014 at same time
Commonly Chosen Outside Option Courses:						
Area	Course	Code	Credit	Year	Sem.	Pre-requisites / comments
Physics	Discovering Astronomy	PHYS08039	20	1	S1	Mainly for non-scientists
	Astronomy 1S: Stellar & Planetary Sci.	PHYS08027	20	1	S2	Alternate years; runs 2012/13
	Astronomy 1G: Galactic & Cosmo. Sci.	PHYS08028	20	2	S2	Alternate years; runs 2011/12
	Introductory Musical Acoustics	MUSI08012	10	1	Y	
	Musical Acoustics	PHYS08021	20	1	S1	
	Computer Simulation	PHYS08026	20	2	S2	Not qualified before Yr 2
	Problem Solving in Physics	PHYS08031	20	2	S1	For fast-track and transfer students

Mathematics	Introduction to Linear Algebra	MATH08057	20	1	S1	
	Calculus and its Applications	MATH08058	20	1	S2	
	Proofs and Problem Solving	MATH08059	20	1	S2	
	Numerical Differential Equations	MATH08036	10	2	S1	Passes in Year 1 mathematics
	Probability (Year 2)	MATH08008	10	2	S1	Passes in Year 1 maths; clashes MfP3
	Statistical methods	MATH08009	10	2	S1	Passes in Year 1 mathematics
	Statistical models	MATH08011	10	2	S2	Recommended MATH08008;MATH08011
Informatics	Informatics Literacy	INFR07002	20	1	S1	
	Comp Prog Skills & Concepts 1	INFR08007	20	1	S1	
	Comp Foundation of Cognitive Sci	INFR08011	20	1	S2	Clashes Yr 2
	Human communication 1	INFR08006	20	1	S2	
	Informatics 1: Computation & Logic	INFR08012	10	1	S1	Must take INFR08013 at same time
	Informatics 1: Functions & Programming	INFR08013	10	1	S1	Must take INFR08012 at same time
	Informatics 1: Object Oriented Program.	INFR08014	10	1	S2	INFR08012 & 08013; 08015 at same time
	Informatics 1: Data and Analysis	INFR08015	10	1	S2	INFR08012 & 08013; 08014 at same time
	Informatics 2A	INFR08008	20	2	S1	All 4 Info-1 courses are pre-requisites
	Informatics 2B	INFR08009	20	2	S2	All 4 Info-1 courses are pre-requisites
	Informatics 2C: Intro to Comp systems	INFR08018	10	2	S1	All 4 Info-1 courses are pre-requisites
	Informatics 2C: Intro to Software Eng.	INFR08019	10	2	S1	All 4 Info-1 courses are pre-requisites
Informatics 2D	INFR08010	20	2	S2	All 4 Info-1 courses are pre-requisites	
Chemistry	Chemistry 1A	CHEM08016	20	1	S1	Meet entrance requirements of Chemistry
	Chemistry 1B	CHEM08017	20	1	S2	Chem 1A
	Chemistry 2	CHEM08019	40	2	Y	Chem 1A and 1B
	Environmental Chemistry 2	CHEM08020	20	2	S2	Chem 1A and 1B
	Physical Chemistry 2	CHPH08001	20	2	Y	Chem 1A and 1B
	Materials Chemistry	CHEM08021	20	2	S1	Chem 1A & 1B, or grade B at A-level/AH
Earth Science	Earth Dynamics	EASC08001	20	1	S1	
	Intro to Geophysics	EASC08008	20	1	S2	
	Earth surface systems	GESC08001	20	1	S2	
	History of Life	EASC08012	20	1	S2	
	Stratigraphy and Sedimentology	EASC08015	20	2	S1	Earth Dyn recommended
	Physics of the Earth	EASC08016	20	2	S2	Intro to Geophysics recommended
	Geomorphology	GEGR08002	20	2	S2	Earth Dyn or Earth Surface Systems
Meteorology	Meteorology: Atmosphere and Environ	METE08001	20	2	S1	Fits well with Yr 2 timetable, not Yr 1
	Meteorology: Weather and Climate	METE08002	20	2	S2	Fits well with Yr 2 timetable, not Yr 1
Ecological and biological science	Soil, Water and Atmospheric Processes	ECSC08003	20	2	S2	
	Origin and Diversity of Life 1	BILG08001	20	1	S1	
Engineering	Engineering 1	SCEE08001	20	1	S1	
	Mechanical Engineering 1	MECE08007	20	1	S2	Clash Yr 2
	Chemical Engineering 1	CHEE08001	20	1	S2	Eng 1; clash MfP2
	Civil Engineering 1	CIVE08001	20	1	S2	Eng 1
	Electrical Engineering 1	ELEE08001	20	1	S2	Eng 1
	Electronics 1	ELEE08013	20	1	S2	
	Fluid Mechanics 2	SCEE08003	10	2	S1	Clash MfP3
	Electronics 2	ELEE08010	20	2	Y	MM2 or Eng 1 or EE1
	Electronic Circuits and devices	ELEE08011	10	2	S1	MM2 or Eng 1 or EE1
	Mechanical Engineering Design 2B	MECE08010	10	2	S2	Physics 1
Management and enterprise	Innovation and Enterprise for Sci & Eng	MAEE08003	20	1	S2	
	Industrial management 1	BUST08002	20	1	S1	Clash Yr 2
	Career Development Planning	CMSE08001	0	2	S2	
Social Science	History of Medicine 1	SCSU08003	20	1	S2	
	Science and Society 1A	SCSU08001	20	1	S1	
Philosophy	Logic 1	PHIL08004	20	1	S2	
	Philosophy of Science 1h	PHIL08005	20	1	S1	
Language	Elementary French Language	ELCF07005/6	20	1	S1/S2	Standard Grade or GCSE
	Intermediate French Language	ELCF07003/4	20	1	S1/S2	Level 1 or Weak A level
	Introductory German Language	ELCG07001/5	20	1	S1/S2	None
	Intermediate German Language	ELCG07004	20	2	S2	Level 1 or Standard
	Introductory Spanish Language	ELCH07001/2	20	1	S1/S2	None
	Intermediate Spanish Language	ELCH07003/4	20	2	S1/S2	55% in Level 1 or Standard Grade
	Introductory Italian Language	ELCI07001/2	20	1	S1/S2	None
	Intermediate Italian Language	ELCI07003/4	20	2	S1/S2	Level 1 or Standard Grade