PHYSICS AND ASTROPHYSICS - CK408

Programme Requirements

First Science Area of Study

Code	Title	Credits
Year 1		
Students take **60** credits from one of the following Options:		
Option 1		
Students take **60** credits as follows - all listed core modules (**40** credits) and **20** credits of elective modules:		
Core Modules		
AM1052	Introduction to Mechanics	5
PY1052	Introductory Physics I	10
PY1053	Introductory Physics II	10
MA1011	Mathematical Methods I	5
MA1012	Mathematical Methods II	5
ST1051	Introduction to Probability and Statistics	5
Elective Modules		
Students take modules to the value of **20** credits from the following:		20
AM1053	Introduction to Mathematical Modelling	5
AM1054	Mathematical Software	5
BL1002	Cells, Biomolecules, Genetics and Evolution	5
BL1004	Physiology and Structure of Plants and Animals	5
BL1006	Habitats and Ecosystems	5
CM1006	Introduction to Chemistry for Physicists and Mathematicians	10
CM1007	Introduction to Chemistry for Physicists	15
CS1061	Programming in C	5
CS1065	Computer Applications Programming	5
CS1068	Introductory Programming in Python	5
MA1057	Introduction to Abstract Algebra	5
PY1054	Special Topics in Physics	5
ST1050	Statistical Programming in R	5
Option 2		
Students take **60** credits as follows - all listed core modules (**45** credits) and **15** credits of elective modules:		
Core Modules		
PY1052	Introductory Physics I	10
PY1053	Introductory Physics II	10
AM1052	Introduction to Mechanics	5
MA1058	Introduction to Linear Algebra	5
MA1059	Calculus	5
MA1060	Introduction to Analysis	5
ST1051	Introduction to Probability and Statistics	5
Elective Modules		
Students take modules to the value of **15** credits from the following:		15
AM1053	Introduction to Mathematical Modelling (5)	
AM1054	Mathematical Software (5)	
BL1002	Cells, Biomolecules, Genetics and Evolution (5)	

Code	Title	Credits
BL1004	Physiology and Structure of Plants and Animals (5)	
BL1006	Habitats and Ecosystems (5)	
CM1006	Introduction to Chemistry for Physicists and Mathematicians (10)	
CM1007	Introduction to Chemistry for Physicists (15)	
CS1061	Programming in C (5)	
CS1065	Computer Applications Programming (5)	
CS1068	Introductory Programming in Python (5)	
MA1057	Introduction to Abstract Algebra (5)	
PY1054	Special Topics in Physics (5)	
ST1050	Statistical Programming in R (5)	
*Option 3 (for students who entered **prior to 2023/24**)*		
Students take **60** credits as follows – all listed core modules (**50** credits) and **10** credits of elective modules:		
Core Modules		
PY1052	Introductory Physics I	10
PY1053	Introductory Physics II	10
MA1058	Introduction to Linear Algebra	5
MA1059	Calculus	5
MA1060	Introduction to Analysis	5
CM1007	Introduction to Chemistry for Physicists	15
Elective Modules		
Students take modules to the value of **10** credits from the following:		10
BL1002	Cells, Biomolecules, Genetics and Evolution (5)	
BL1004	Physiology and Structure of Plants and Animals (5)	
BL1006	Habitats and Ecosystems (5)	
Year 2		
Select one of the following outlets:		
Options 1 and 2		
BSc Single Honours		
Astrophysics (https://ucc-ie-public.courseleaf.com/programmes/bscpya/)		
Physics (https://ucc-ie-public.courseleaf.com/programmes/bscp/)		
Chemical Physics (either CM1006 or CM1007 compulsory) (https://ucc-ie-public.courseleaf.com/programmes/bsccpy/)		
BSc Joint Honours		
Mathematical Sciences and Physics (https://ucc-ie-public.courseleaf.com/programmes/bscpj/)		
Option 3		
Science Education (Physics Route only) (for students who entered *prior to 2023/24*) (https://ucc-ie-public.courseleaf.com/programmes/bscsed/)		

Notes

1. Students wishing to proceed to the Joint Honours Programme in Mathematical Sciences and Physics must choose Option 2, and in addition, must take AM1053, AM1054 and MA1057 in first science.
2. Students wishing to study for the BSc in Chemical Physics must take either CM1006 or CM1007 in first science.

3. Students who, for special reasons, wish to take modules not specifically allowed by the regulations, must make an application to the College.

4. Individual elective modules may occasionally not be offered in some calendar years.

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.