

F303 MPhys Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
+ 7.5 credits from:				
PHYS115	Introduction to Medical Physics	7.5	4	2a
PHYS135	Introduction to Nuclear Science	7.5	4	2a
PHYS155	Introduction to Astrophysics	7.5	4	2a
PHYS165	Introduction to Physics for Education	7.5	4	2a
Total Credits		120		

F303 MPhys Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS206	Practical Physics II	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
+ 15 credits from:				
PHYS208	Maths for Physicists IV	15	5	2
PHYS246	Accelerators & Radioisotopes in Medicine	15	5	2
PHYS251	Stellar Physics	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS306	Practical Physics III	15	6	1
PHYS305	Computational Modelling	15	6	2
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
Options: 52.5 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS375	Nuclear Physics	7.5	6	1a
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS392	Statistics for Physics Analysis	15	6	1
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS376	Nuclear Power	7.5	6	2a
PHYS384	Medical Applications	15	6	2
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
PHYS373	Physics of Galaxies	15	6	1
PHYS374	Relativity and Cosmology	15	6	2
PHYS246	Accelerators & Radioisotopes in Medicine (2019/20 only)	15	5	2
PHYS251	Stellar Physics (2019/20 only)	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS498	Project (MPhys)	30	7	1 + 2
Options: 90 credits from... (S1/S2 imbalance must be no more than 15 credits)				
PHYS470	Classical Mechanics	15	7	1
PHYS480	Advanced Quantum Physics	15	7	1
PHYS481	Accelerator Physics	7.5	7	1b
PHYS497	Magnetic Structure and Function (2019/20 only)	7.5	7	1a
PHYS499	Nanoscale Physics and Technology	7.5	7	2a
PHYS482	Physics of Life	7.5	7	2b
PHYS490	Advanced Nuclear Physics	15	7	2
PHYS492	Neutrinos and Dark Matter	7.5	7	2a
PHYS493	Advanced Particle Physics	15	7	2
PHYS483	Stellar Populations (requires PHYS251/351)	15	7	1
PHYS484	Elements of Stellar Dynamics	7.5	7	1a
PHYS485	Physics of the Radiative Universe	15	7	2
PHYS453	Time Domain Astrophysics (requires PHYS251/351)	7.5	7	2a
PHYS392	Statistics for Physics Analysis (2019/20 only)	15	6	1
Total Credits		120		

F300 BSc Physics Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
+ 7.5 credits from:				
PHYS115	Introduction to Medical Physics	7.5	4	2a
PHYS135	Introduction to Nuclear Science	7.5	4	2a
PHYS155	Introduction to Astrophysics	7.5	4	2a
PHYS165	Introduction to Physics for Education	7.5	4	2a
Total Credits		120		

F300 BSc Physics Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS206	Practical Physics II	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
+ 15 credits from:				
PHYS208	Maths for Physicists IV	15	5	2
PHYS246	Accelerators & Radioisotopes in Medicine	15	5	2
PHYS251	Stellar Physics	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS306	Practical Physics III	15	6	1
PHYS379	Project	15	6	2
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
Options: 52.5 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS305	Computational Modelling	15	6	2
PHYS375	Nuclear Physics	7.5	6	1a
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS392	Statistics for Physics Analysis	15	6	1
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS376	Nuclear Power	7.5	6	2a
PHYS384	Medical Applications	15	6	2
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
PHYS373	Physics of Galaxies	15	6	1
PHYS374	Relativity and Cosmology	15	6	2
PHYS246	Accelerators & Radioisotopes in Medicine (2019/20 only)	15	5	2
PHYS251	Stellar Physics (2019/20 only)	15	5	2
Total Credits		120		

F390 BSc Physics with Nuclear Science

Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
PHYS135	Introduction to Nuclear Science	7.5	4	2a
Total Credits		120		

F390 BSc Physics with Nuclear Science

Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS206	Practical Physics II	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
PHYS246	Accelerators & Radioisotopes in Medicine	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS380	Radiation Physics Advanced Practical	7.5	6	1a
PHYS398	Nuclear Science Project	30	6	1+2
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
PHYS375	Nuclear Physics	7.5	6	1a
PHYS376	Nuclear Power	7.5	6	2a
Options: 30 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS305	Computational Modelling	15	6	2
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS392	Statistics for Physics Analysis	15	6	1
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS384	Medical Applications	15	6	2
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
PHYS373	Physics of Galaxies	15	6	1
PHYS374	Relativity and Cosmology	15	6	2
Total Credits		120		

F350 BSc Physics with Medical Applications

Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
PHYS115	Introduction to Medical Physics	7.5	4	2a
Total Credits		120		

F350 BSc Physics with Medical Applications

Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS206	Practical Physics II	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
PHYS246	Accelerators & Radioisotopes in Medicine	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS380	Radiation Physics Advanced Practical	7.5	6	1a
PHYS386	Medical Physics Project	30	6	1+2
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
PHYS384	Medical Applications	15	6	2
Options: 30 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS305	Computational Modelling	15	6	2
PHYS375	Nuclear Physics	7.5	6	1a
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS392	Statistics for Physics Analysis	15	6	1
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS376	Nuclear Power	7.5	6	2a
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
PHYS373	Physics of Galaxies	15	6	1
PHYS374	Relativity and Cosmology	15	6	2
Total Credits		120		

F521 MPhys Astrophysics

Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
PHYS155	Introduction to Astrophysics	7.5	4	2a
Total Credits		120		

F521 MPhys Astrophysics

Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS216	Practical Astrophysics I	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
PHYS251	Stellar Physics	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
PHYS373	Physics of Galaxies	15	6	1
PHYS374	Relativity and Cosmology	15	6	2
PHYS251	Stellar Physics (2019/20 only)	15	5	2
Options: 15 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS305	Computational Modelling	15	6	2
PHYS394	Practical Astrophysics II	15	6	1
Options: 15 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS362	Advanced Observational Astrophysics	15	6	1
Options: 7.5 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS375	Nuclear Physics	7.5	6	1a
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS376	Nuclear Power	7.5	6	2a
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS498	(Astrophysics) Project (MPhys)	30	7	1 + 2
PHYS494	Computational Astrophysics (19/20 & 20/21)	15	7	1
Options: 75 credits from... (S1/S2 imbalance must be no more than 15 credits)				
PHYS470	Classical Mechanics	15	7	1
PHYS480	Advanced Quantum Physics	15	7	1
PHYS481	Accelerator Physics	7.5	7	1b
PHYS497	Magnetic Structure and Function (2019/20 only)	7.5	7	1a
PHYS499	Nanoscale Physics and Technology	7.5	7	2a
PHYS482	Physics of Life	7.5	7	2b
PHYS490	Advanced Nuclear Physics	15	7	2
PHYS492	Neutrinos and Dark Matter	7.5	7	2a
PHYS493	Advanced Particle Physics	15	7	2
PHYS483	Stellar Populations	15	7	1
PHYS484	Elements of Stellar Dynamics	7.5	7	1a
PHYS485	Physics of the Radiative Universe	15	7	2
PHYS453	Time Domain Astrophysics	7.5	7	2a
PHYS495	The Interstellar Medium	15	7	2
PHYS392	Statistics for Physics Analysis (if PHYS488 taken in Y3)	15	6	1
Total Credits		120		

F3F5 BSc Physics with Astronomy Year 1

2019/20

Code	Name	Credits	Level	Semester
PHYS101	Newtonian Dynamics	15	4	1
PHYS102	Thermal Physics and Properties of Matter	15	4	1
PHYS103	Wave Phenomena	15	4	2
PHYS104	Foundations of Modern Physics	15	4	2
PHYS105	Introduction to Computational Physics	7.5	4	1
PHYS106	Practical Physics I	15	4	1+2
PHYS107	Maths for Physicists I	15	4	1
PHYS108	Maths for Physicists II	15	4	2
PHYS155	Introduction to Astrophysics	7.5	4	2a
Total Credits		120		

F3F5 BSc Physics with Astronomy Year 2

2019/20

Code	Name	Credits	Level	Semester
PHYS201	Electromagnetism I	15	5	1
PHYS202	Condensed Matter Physics	15	5	2
PHYS203	Quantum and Atomic Physics I	15	5	1
PHYS204	Nuclear and Particle Physics	15	5	2
PHYS205	Computational Physics	15	5	1+2
PHYS216	Practical Astrophysics I	15	5	1+2
PHYS207	Maths for Physicists III	15	5	1
PHYS251	Stellar Physics	15	5	2
Total Credits		120		

Code	Name	Credits	Level	Semester
PHYS379	(Astrophysics) Project	15	6	2
PHYS361	Quantum and Atomic Physics II	15	6	1
PHYS370	Electromagnetism II	15	6	2
PHYS393	Statistical Physics	7.5	6	1b
PHYS374	Relativity and Cosmology	15	6	2
PHYS251	Stellar Physics (2019/20 only)	15	5	2
Options: 15 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS309	Research Internship	15	6	-
PHYS373	Physics of Galaxies	15	6	1
Options: 22.5 credits from:- (S1/S2 imbalance must be no more than 15 credits)				
PHYS305	Computational Modelling	15	6	2
PHYS375	Nuclear Physics	7.5	6	1a
PHYS377	Particle Physics	7.5	6	2a
PHYS363	Solid State Physics	7.5	6	1a
PHYS387	Material Physics and Characterization	7.5	6	1a
PHYS381	Surfaces and Interfaces	7.5	6	2a
PHYS399	Magnetic Properties of Solids	7.5	6	2b
PHYS389	Semiconductor Applications	7.5	6	1b
PHYS372	Energy Generation and Storage	7.5	6	2b
PHYS376	Nuclear Power	7.5	6	2a
PHYS321	Physics of Sound and Music	7.5	6	2b
PHYS355	Planetary Physics	7.5	6	2b
PHYS362	Advanced Observational Astrophysics	15	6	1
PHYS394	Practical Astrophysics II	15	6	1
Total Credits		120		