Overview of Year 3 programme in 2024-2025 academic year.

Degree	Core Module	Compulsory	FHEQ6 Electives	FHEQ7 Electives	Degree requirement
Programme		Module		(maximum of one module)	
BSc (F300)	NPP, <mark>SS</mark> , Comp	Lab3, Project	ACP, ASP(T), CP(T), DSci,	APP(T), <mark>H</mark> , ATM, COS, EfP,	Need 20-22.5 ECTS Electives
			FQM(T), GT(T), MIR, <mark>LS</mark> ,	GR(T), <mark>IT</mark> , LT, CDP, OCP,	
			Plas, PI, SM(T)	QFT(T), $QI(T)$ , $QO$ , $QTM(T)$ ,	
				SP, U(T)	
BSc Theory	NPP, SS, Comp,	<b>Project</b>	ASP(T), CP(T), DSci,	APP(T), <mark>H</mark> , ATM, COS, EfP,	Need 20-22.5 ECTS Electives
(F325)	<mark>ACP</mark>		FQM(T), GT(T), MIR, <mark>LS</mark> ,	GR(T), <mark>IT</mark> , LT, <mark>CDP</mark> , <mark>OCP</mark> ,	Requires minimum of 15ECTS
			Plas, Pl, SM(T)	QFT(T), $QI(T)$ , $QO$ , $QTM(T)$ ,	in Theory option
				SP, U(T)	
MSci (F303)	NPP, <mark>SS</mark> , Comp	Lab3	ACP, ASP(T), CP(T), DSci,	APP(T), <mark>H</mark> , ATM, COS, <mark>E</mark> fP,	Need 27.5-30 ECTS Electives.
			FQM(T), GT(T), MIR, <mark>LS</mark> ,	GR(T), <mark>IT</mark> , LT, <mark>CDP</mark> , <mark>OCP</mark> ,	Requires minimum 60ECTS
			Plas, Pl, SM(T), Project	QFT(T), $QI(T)$ , $QO$ , $QTM(T)$ ,	@FHEQ7 across Y3/Y4.
				SP, U(T)	
MSci Theory	NPP, <mark>SS</mark> , Comp,		ASP(T), CP(T), DSci,	APP(T), <mark>H</mark> , ATM, COS, EfP,	Need 27.5-30 ECTS Electives.
(F390)	ACP		FQM(T), GT(T), MIR, <mark>LS</mark> ,	GR(T), <mark>IT</mark> , LT, <mark>CDP</mark> , <mark>OCP</mark> ,	Requires minimum of 7.5
			Plas, Pl, SM(T), Project	QFT(T), $QI(T)$ , $QO$ , $QTM(T)$ ,	ECTS in Theory option in Y3 &
				SP, U(T)	37.5ECTS across Y3/Y4.
					Requires minimum 60ECTS
					@FHEQ7 across Y3/Y4

Credit for modules: 5ECTS, 7.5ECTS, 15ECTS

Core module: Must take in Y3, must pass module at 40%.

Compulsory modules: Must take in Y3, module pass mark 40%.

Elective modules: Must have total credits required by the programme. FHEQ 6: pass mark 40%; FHEQ 7: pass mark 50%. Compensated pass

may be granted.

Maximum of one FHEQ7 module subject to departmental agreement.

NPP: Nuclear & Particle Physics

SS: Solid State Physics Comp: Comprehensives

Project: Project (Experimental, Computational, Theoretical, Essay)

ACP: Advanced Classical Physics

H: Hydrodynamics

**APP: Advanced Particle Physics** 

**ASP: Astrophysics** 

ATM: Atmospheric Physics CP: Computational Physics CDP: Concepts in Device Physics

COS: Cosmology

DSci: Data Science for Physics

EfP: Entrepreneurship for Physicists

FQM: Foundations of Quantum Mechanics

GT: Group Theory

**GT:** General Relativity

**IT: Information Theory** 

MIR: Physics of Medical Imaging and Radiotherapy

LS: Lasers

LT: Laser Technology

OCP: Optical Communications PI: Principle of Instrumentation

PLAS: Plasma Physics

QFT: Quantum Field Theory<sup>1</sup> QI: Quantum Information<sup>2</sup>

QO: Quantum Optics

QTM: Quantum Theory of Matter

SM: Statistical Mechanics

SP: Space Physics U: Unification<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Normally ACP and FQM must be taken in Year 3 to take QFT in Year 4

<sup>&</sup>lt;sup>2</sup> Normally FQM must be taken in Year 3 to take QI in Year 4

<sup>&</sup>lt;sup>3</sup> Normally ACP, FQM must be taken in Year 3, and QFT in Year 4 to take Unification in Year 4