Programme structure

Themes	Year 1	Year 2	Year 3	Year 4
Structures	Statics & Mechanics	Structural Engineering	Structural Design	Advanced Structures
Water	Fluids and Heat	Floods & Rivers	River & Water Supply	Fluids and Water Engineering
Geotechnics	Materials	Soil Mechanics	Foundations	Geomechanics
Design	Conceptual Design	Detail Design	Team Design	Design Practice
Analysis and Management	Maths & Modelling	Management	Structural Analysis	Research
Options[1]	Options	Options	Options	Options
Railways[2]	Introduction to Railway Systems	Railway Infrastructure Railway Traction	Railway Operations & Management Train Control Design Project	Advanced Topics in Railway Systems & Engineering Research Project
Energy[3]	Introduction	Sustainability	Advanced Topics	Policy

[1]Engineering and non-engineering

[2]Available to Civil & Railway Engineering

[3]Available to Civil & Energy Engineering

Year One

Open all sections

Civil Engineering	Civil Engineering with Industrial Experience
Statics and Mechanics	Students follow Civil Engineering Year One
Fluid Flow Thermodynamics and Heat Transfer	
Properties and Applications of Materials	
Construction Design and Professional Skills A	
Construction Design and Professional Skills B	
Electrical, Electronic and Computer Systems	
Modelling Concepts and Tools	
> + 20 credit MOMD	

Civil & Railway Engineering	Civil & Energy Engineering
Statics and Mechanics	Statics and Mechanics
Fluid Flow Thermodynamics and Heat Transfer	Fluid Flow Thermodynamics and Heat Transfer
Properties and Applications of Materials	Properties and Applications of Materials
Construction Design and Professional Skills B	Construction Design and Professional Skills B
Modelling Concepts and Tools	Modelling Concepts and Tools
Introduction to Railway Systems	Construction Design and Professional Skills A
Construction Design and Professional Skills A	Introduction to Energy Engineering
	Electrical, Electronic and Computer Systems

Year Two

Civil Engineering	Civil Engineering with Industrial Experience
Structural Engineering	Students follow Civil Engineering Year Two
Floods and River Systems	
Soil Mechanics and Geotechnical Engineering	
Construction Design	
Construction Practice and Management	
> + 20 credit MOMD	

Civil & Railway Engineering	Civil & Energy Engineering
Structural Engineering	Structural Engineering
Floods and River Systems	Floods and River Systems
Soil Mechanics and Geotechnical Engineering	Soil Mechanics and Geotechnical Engineering
Construction Design	Construction Design
Railway Infrastructure	Efficient Heat Engines and Heat Pumps
Railway Traction	Electrical Power
	Sustainable Development

Year Three (BEng)

Civil Engineering	Civil Engineering with Industrial Experience
Structural Engineering Analysis	n/a
Structural Engineering Design	
River Basin Management	
Water Supply and Treatment	
Foundation Engineering	
Civil Engineering Design Project	
Civil Engineering Guided Study	
> + 20 credit MOMD	

Civil & Railway Engineering	Civil & Energy Engineering
Structural Engineering	Structural Engineering
River Basin Management	River Basin Management
Foundation Engineering	Foundation Engineering
Civil Engineering/Railways Design Project	Civil Engineering Design Project
Civil Engineering Guided Study	Civil Engineering Guided Study
Railway Operations & Management	Advanced Conventional Energy
Train Control	Energy Economics
	Environmental Risk Assessment
	Renewable Energy

Year Three (MEng)

Civil Engineering	Civil Engineering with Industrial Experience
Structural Engineering Analysis	Structural Engineering Analysis
Structural Engineering Design	Structural Engineering Design
River Basin Management	River Basin Management
Water Supply and Treatment	Water Supply and Treatment
Foundation Engineering	Foundation Engineering
Civil Engineering Multi-disciplinary Project	Civil Engineering Multi-disciplinary Project
Civil Engineering Group Management Project or Civil Engineering Guided Research	Civil Engineering Group Management Project or Civil Engineering Guided Research
> + 20 credit MOMD	Industrial Project 1

Civil & Railway Engineering	Civil & Energy Engineering
Structural Engineering Design	Structural Engineering Design
River Basin Management	River Basin Management
Foundation Engineering	Foundation Engineering
Civil Engineering Multi-Disciplinary Project	Civil Engineering Multi-Disciplinary Project
Civil Engineering Group Management Project or Civil Engineering Guided Research	Civil Engineering Group Management Project or Civil Engineering Guided Research
Railway Operations & Management	Advanced Conventional Energy
Train Control	Energy Economics
	Environmental Risk Assessment
	Renewable Energy

Year Four

Civil Engineering	Civil Engineering with Industrial Experience
Advanced Structures and Design	Advanced Structures and Design
Civil Engineering Research Project	Civil Engineering Research Project
Engineering Geology	Industrial Project 2
Financial Dec Making in the Bus Environment	
+ 20 credit MOMD in 1st and 2nd semester	+ 20 credit MOMD in 1st and 2nd semester

Civil & Railway Engineering	Civil & Energy Engineering
Advanced Structures and Design	Advanced Structures and Design
Civil Engineering/Railways Research Project	Civil Engineering Research Project
Advanced Topics in Railway Systems & Engineering	Energy Policy and Case Studies
	Sustainable Construction
	Hydrology
	River Flow Fundamentals

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