University of Salford MANCHESTER

Structure of STEM-Foundation Year

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Foundation Mathematics 1	***Foundation Physics A***	***Foundation Physics B***	***Foundation Laboratory*** ***OR*** ***Foundation Probability and Statistics***	***Foundation IT and Study Skills***
Foundation Mathematics 2				

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Foundation Mathematics 1 (short fat)

- Algebraic manipulation in scientific problems, transposition of formulae
- Cartesian and polar co-ordinates.
- Logarithmic functions
- Introduction to calculus

Foundation Mathematics 1 – Dr Kevin Sandiford
Coursework: Core maths skills 1, 50%
Coursework: Core maths skills 2, 50%

Helping Engineers Learn Mathematics

HELM

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Foundation Mathematics 2 (short fat)

- Vectors
- Complex numbers
- Differentiation
- Applications of Differentiation
- Integration
- Sequences and Series

Foundation Mathematics 2 - Dr Graham S McDonald
Coursework: Core maths skills 3, 50%
Coursework: Core maths skills 4, 50%

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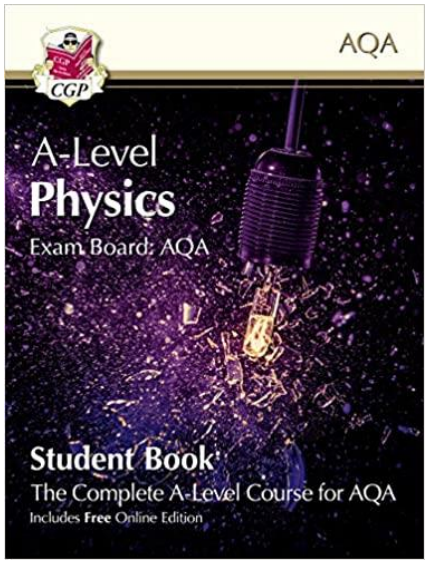
Foundation Physics A (long thin)

- Mechanics – Forces in Equilibrium, Dynamics, Force and Motion, Energy and Power, Circular Motion
- Properties of Mater – Matter and Molecules, Thermal Properties, Strength of Solids, The Gas Laws
- Waves – Properties of Waves, Sound, Optics, Electromagnetic Waves



Coursework 1: Core Physics A skills 1, 50%
Coursework 2: Core Physics A skills 2, 50%

Trimester 1 - Dr Heather M Yates
Trimester 2 – Dr Graham S McDonald

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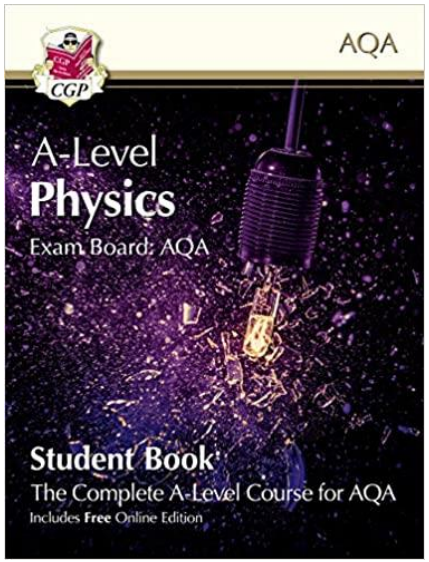
Foundation Physics B (long thin)

- Electricity – Electric Circuits, Capacitors, Electronics
- Fields – Electric Fields, Magnetic Fields, Electromagnetic Induction, Alternating Current, Gravitation
- Atomic and Nuclear Physics – Electrons and Photons, Radioactivity, Energy from the Nucleus

Coursework: Core physics B skills 1, 50%
Coursework: Core physics B skills 2, 50%

Trimester 1- Dr Mark A Hughes
Trimester 2- Dr Marina A Leontiadou



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Foundation Physics Laboratory (long thin)

- Experimental design
- Methods of scientific measurement and reporting
- Data analysis and errors
- A series of experiments covering, mechanics, thermal physics, electricity, and waves.

Coursework 1: Core Lab skills, 50%
Coursework 2: Lab Journal, 50%

Trimester 1- Dr Marina Leontiadou
Trimester 2- Dr Tiehan Shen

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Foundation IT and Study Skills (long thin)

- Presentation Skills – report writing, scientific presentations
- Problem Exercises – group based exercises solving physics and engineering based problems.
- IT Skills – the use of spreadsheets, graphical representations of data, computer algebra, solving problems using computers

Coursework 1: Core Physics skills, 50%
Coursework 2: IT skills, 50%

Trimester 1- Dr Marina Leontiadou
Trimester 2- Dr Mark Hughes

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Introduction to Probability & Statistics
(long thin)

This module is only for Maths students only instead of the laboratory module.

- Knowledge, understanding and competence in probability and statistics gained.
- Knowledge of specific software packages used to statistically analyse data used.

Coursework 1: Core Maths skills, 50%
Coursework 2: Core Maths skills, 50%

Trimester 1- Mr Hamid Adamu
Trimester 2- Mr Hamid Adamu

Academic timetable

Semester 1 – Foundation Year

(Physics/Acoustics/ EE/ EEE students)

	9am	10am	11am	12am	13pm	14pm	15pm	16pm	17pm
Mon		Foundation Physics A (CRN50142) Peel G10, H. Yates						Foundation Mathematics 1 (CRN52551) Maxwell 412, K. Sandiford	
Tues						Foundation Physics Laboratory (CRN50158) SB3.01 M.Leontiadou **Group A**		Foundation Physics Laboratory (CRN50158) SB3.01 M.Leontiadou **Group B**	
						Found Mathematics1 (CRN52551) SB3.07 **Group B**		Found Mathematics1 (CRN52551) SB3.07 **Group A**	
Wed									
Thurs									
Fri	Foundation Physics B (CRN50143) Peel 102 M. Hughes					Foundation IT&Study skills (CRN50159), Peel LG12 M. Leontiadou **Group A**		Foundation IT&Study skills (CRN50159) Peel LG12 M. Leontiadou **Group B**	
						Found Mathematics1 (CRN52551) Peel 320 **Group B**		Found Mathematics1 (CRN52551) Peel 320 **Group A**	

You can also access your timetable online https://tt.salford.ac.uk/course/S.PFY.F/1

Academic timetable

Semester 1 – Foundation Year
(only for Maths students)

	9am	10am	11am	12am	13pm	14pm	15pm	16pm	17pm
Mon		Foundation Physics A (CRN50142) Peel G10, H. Yates						Foundation Mathematics 1 (CRN52551) Maxwell 412, K. Sandiford	
Tues	Introduction to Probability & Statistics (CRN52785) Online Delivery, H. Adamu				Found Mathematics1 (CRN52551) SB3.07 **Group B**			Found Mathematics1 (CRN52551) SB3.07 **Group A**	
Wed									
Thurs									
Fri	Foundation Physics B (CRN50143) Peel 102 M. Hughes				Foundation IT&Study skills(CRN50159) Peel LG12 M. Leontiadou **Group A** Found Mathematics1 (CRN52551) Peel 320 **Group B**			Foundation IT&Study skills(CRN50159) Peel LG12 M. Leontiadou **Group B** Found Mathematics1 (CRN52551) Peel 320 **Group A**	

You can also access your timetable online https://tt.salford.ac.uk/course/S.PFY.F/1

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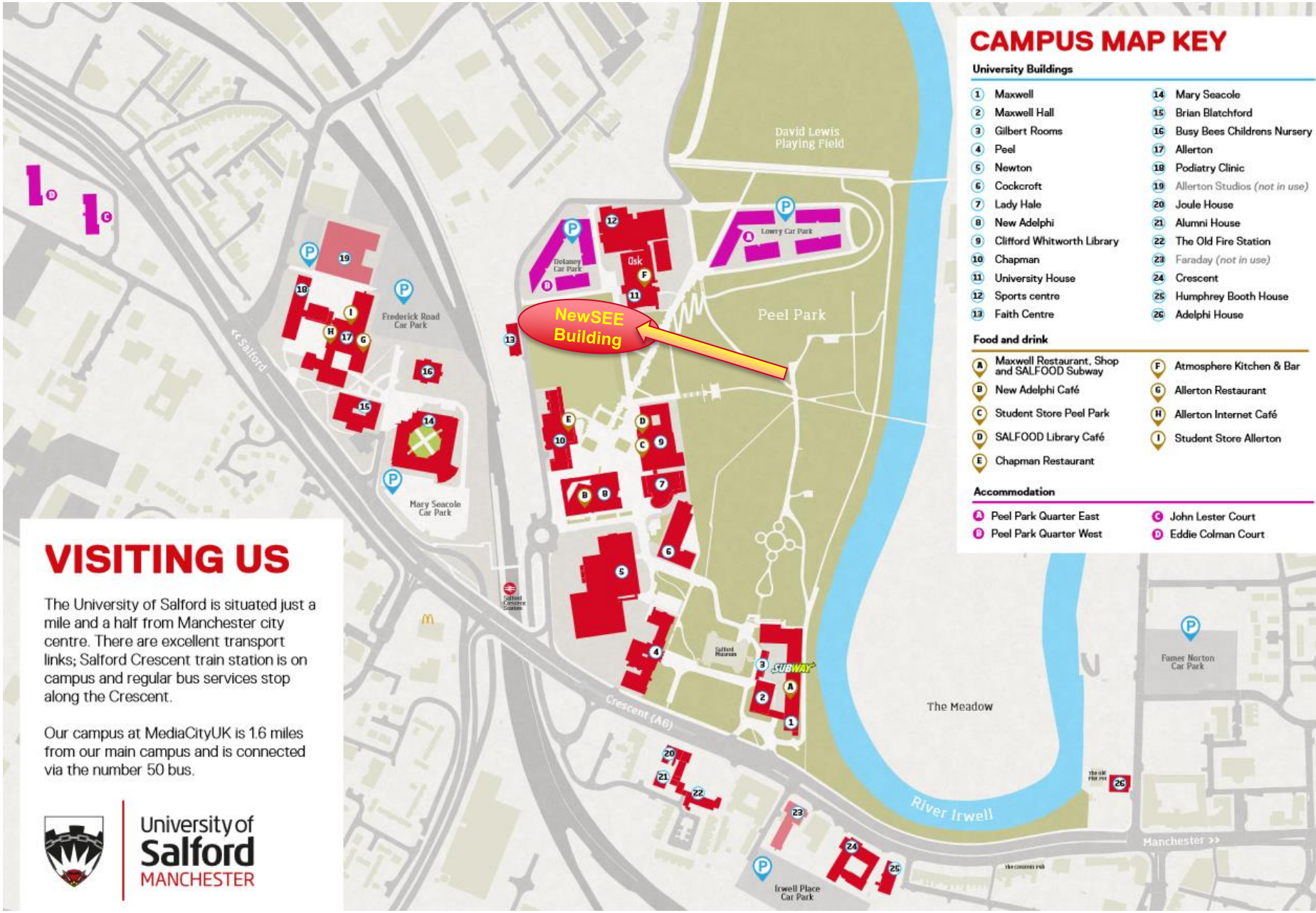
- For Foundations Mathematics 1, Foundation IT&study skills and Foundation Physics Laboratory modules students will be split into two groups, Group A and Group B and will be expected to arrive the time of your group.

- If for a reason you would need to swap groups you will have to speak to the module leader and get approval.

- Students enrolled in the Foundation Physics laboratory module, they will have to complete successfully a Health and Safety test to gain access to the lab.

- Most of the material is uploaded and available on Blackboard in advance and you are advised to spend time to get prepared on what's on every week.



CAMPUS MAP KEY

University Buildings

1. Maxwell
2. Maxwell Hall
3. Gilbert Rooms
4. Peel
5. Newton
6. Cockcroft
7. Lady Hale
8. New Adelphi
9. Clifford Whitworth Library
10. Chapman
11. University House
12. Sports centre
13. Faith Centre
14. Mary Seacole
15. Brian Blatchford
16. Busy Bees Childrens Nursery
17. Allerton
18. Podiatry Clinic
19. Allerton Studios *(not in use)*
20. Joule House
21. Alumni House
22. The Old Fire Station
23. Faraday *(not in use)*
24. Crescent
25. Humphrey Booth House
26. Adelphi House

Food and drink

- A Maxwell Restaurant, Shop and SALFOOD Subway
- B New Adelphi Café
- C Student Store Peel Park
- D SALFOOD Library Café
- E Chapman Restaurant
- F Atmosphere Kitchen & Bar
- G Allerton Restaurant
- H Allerton Internet Café
- I Student Store Allerton

Accommodation

- A Peel Park Quarter East
- B Peel Park Quarter West
- C John Lester Court
- D Eddie Colman Court

VISITING US

The University of Salford is situated just a mile and a half from Manchester city centre. There are excellent transport links; Salford Crescent train station is on campus and regular bus services stop along the Crescent.

Our campus at MediaCityUK is 1.6 miles from our main campus and is connected via the number 50 bus.

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Key Academic Staff at Level 3/4

- *Prof. Ian Morrison – Head of Physics*
- *Dr. Daniel Bull – Programme Leader*
- *Dr Marina Leontiadou – STEM FY Programme Leader*

- *Dr Graham McDonald*
- *Dr Heather Yates*
- *Dr John Proctor*
- *Dr Mark Hughes*
- *Dr Tiehan Shen*
- *Dr James Christian*
- *Dr Stuart Austin – Lab Technical Team*
- *Bruce Lewis – Lab Technical Team*
- *Dr. Kevin Sandiford*
- *Dr Hamid Adamu*