



University of Chester

Thornton Science
Park



Faculty of Science
and Engineering

Professor Steve Wilkinson, Head of Chemical Engineering

<http://www.chester.ac.uk/science-engineering>

Faculty of
Science & Engineering



University of
Chester

Thornton Science Park



- 66 Acre Site
- Established during second world war
- World class fuels and lubricants research
- Up to 2,000 people on site
- 2013 – Site donated by Shell to University of Chester
- Over £7M of HEFCE Catalyst Funding
- 1000 students on Thornton Science Park by 2017

Thornton



Building Name

1 Upton	55 Weaverham	102 Ellesmere
2 Saughall	56 Mollington	104 Manley
9 Hapsford	58 Kingsley	105 Anderton
10 Overpool	62 Dunham	110 Trafford
14 Rossmore	67 Eaton	160 Appleton
19 Whitby	68 Kelsall	301 Kinsey
24 Arley	71 Newton	303 Ashton
27 Elton	90 Tarvin	304 Hartford
38 Sutton	95 Delamere	305 Sandfield
40 Backford	97 Stamford	306 Ledsham
49 Stanney	99 Netherton	
50 Ince	101 Willington	

Key

-  Entrance
-  Disabled Parking
-  Parking
-  Bus Stop
-  Cycleway
-  Cycle shelter
-  Footpath
-  Catering Outlet
-  Recycling



Faculty of Science and Engineering

- Department of Mechanical Engineering
- Department of Electronic and Electrical Engineering
- Department of Chemical Engineering
- Department of Natural Sciences
- Department of Computer Science and Information Systems
- Department of Mathematics

Why study at Chester?

■ The University of YOU...

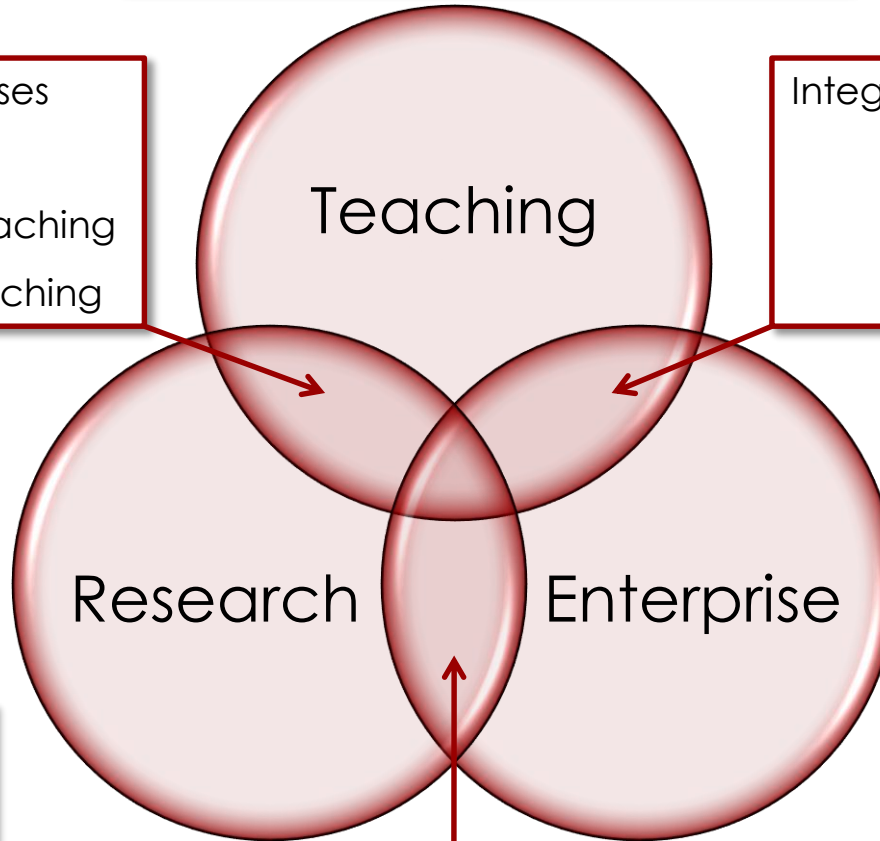
- First new Faculty of Science and Engineering in over 20 years:
- New purpose build labs and teaching spaces
- Designed by engineers and scientists, for scientist and engineers
- Top quality, research-informed teaching
- Staff : student ratio 1:10
- Modern, industrially engaged programmes
- Employers on site
- A growing, vibrant environment...



BSc/BEng/MEng portfolio
Student Recruitment/Retention
Employability
Student Satisfaction (NSS)
Accreditation

Postgraduate Courses
Short Courses
Research Informed Teaching
Industry Engaged Teaching

Integrated Work Placements
Course Design
CPD
Innovation



REF 2020
Research grants
PhD students
Partnerships
New multidisciplinary
research centres

KTP
CASE
SMART
Industry chairs

Incubator units x 22
Services to incubators
University spin-out
companies
Licences and patents

Materials Analysis Research Lab

Scanning electron microscopy for high-resolution imaging with micro-area elemental analysis (SEM-EDX).

X-ray photoelectron spectroscopy for surface and thin-film chemical analysis (XPS).

Optical microscopy.

Sample preparation – ultrasonication, milling, polishing, coating.

Molecular spectroscopy –UV/vis and infra-red spectroscopy for chemical group identification, time-of-flight mass spectrometry for molecular identification.

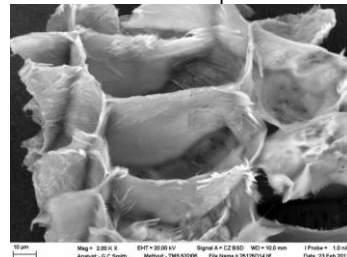
Elemental analysis by X-ray fluorescence.



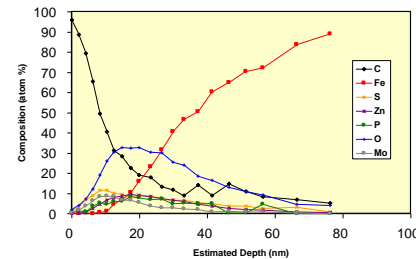
SEM-EDX instrument



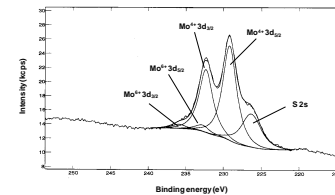
SEM-EDX
element
distribution map



SEM image – parenchyma
cells from processed sugar
cane



XPS depth profile



Chemical state
resolution by XPS
Faculty of
Science & Engineering



XPS instrument



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Questions ?

