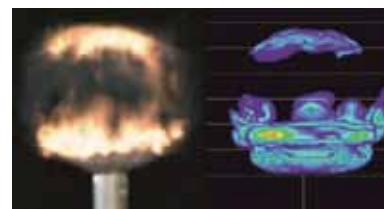
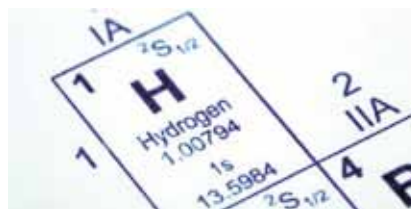
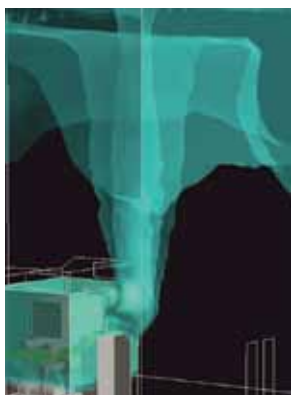
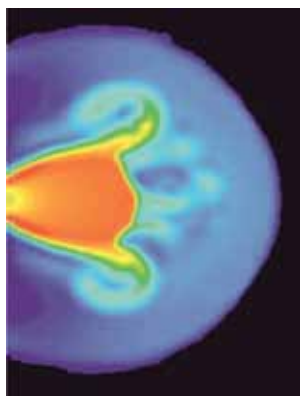
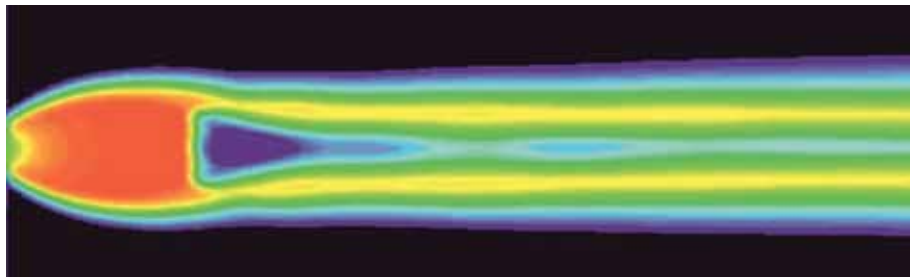


PgC/PgD/MSc HYDROGEN SAFETY ENGINEERING



**THE WORLD'S FIRST POSTGRADUATE COURSE
IN HYDROGEN SAFETY
(Now in distance learning mode)**

ABOUT THE COURSE

Hydrogen Safety Engineering is of vital importance to the low carbon economy and use of hydrogen and fuel cell technologies. It entails the study of safety related phenomena such as unscheduled releases and dispersion of hydrogen (permeation, subsonic, sonic and supersonic jets, cryogenic spills), mechanisms of ignition and autoignition, microflames thermal loads from underexpanded jet fires, pressure loads from deflagrations and detonations, decay of blast waves, effects of blast waves on people/structures/buildings/equipment, material compatibility (embrittlement, hydrogen attack), mitigation technologies, hazards and risk assessment, etc.

You will be able to develop safety strategies and innovative engineering solutions for variety of applications in the area of hydrogen production, storage, and transportation, as well as use of emerging hydrogen and fuel cell systems and infrastructure. You'll become an expert in Regulations, Codes and Standards in the field, as well as in the unique Hydrogen Safety Engineering Framework, developed at the University of Ulster in collaboration with world leading experts. This will secure international competitiveness of your company products and professional consultancy services.

DURATION

	CATS points	Part-time	Full-time
PgC	60	1 year	-
PgD	120	2 years	1 year
MSc	180	3 years	1 year

DELIVERY

The PgC/PgD/MSc in Hydrogen Safety Engineering is a distance learning course. The teaching process and materials, and all necessary resources are available fully online giving students a great degree of flexibility in life long learning. The optional module Progress in Hydrogen and Fuel Cell Technologies, if chosen, is delivered in face-to-face mode during block releases and is web supported.

WHAT DO I NEED TO APPLY?

You should possess a Degree from a University of the UK or ROI, and/or equivalent standards in a Graduate Diploma, Graduate Certificate or an approved qualification. Please refer to the online prospectus for other acceptable qualifications. <http://prospectus.ulster.ac.uk>



STRUCTURE AND CONTENT

Full-time, Year 1, Semester 1, 2 & 3

Compulsory modules

Principles of Hydrogen Safety (30 points)
Hydrogen Safety Technologies (30 points)
Regulations, Codes and Standards (30 points)
Dissertation (60 points)

Optional modules

Hydrogen Powered Transport and Infrastructure Safety (30 points)
Progress in Hydrogen and Fuel Cell Technologies (30 points)

Part-time, Year 1, Semester 1 & 2

Principles of Hydrogen Safety (30 points)
Hydrogen Safety Technologies (30 points)

Part-time, Year 2, Semester 1 & 2

Compulsory module

Regulations, Codes and Standards (30 points)

Optional modules

Hydrogen Powered Transport and Infrastructure Safety (30 points)
Progress in Hydrogen and Fuel Cell Technologies (30 points)

Part-time, Year 3, Semester 1 & 2

Dissertation (60 points)

The topical content of the modules complies with the International Curriculum on Hydrogen Safety Engineering (www.hysafe.org/Curriculum), the development of which is led by the University of Ulster within the International Association for Hydrogen Safety (HySafe) and aided by more than 60 internationally recognised experts. The teaching materials of the course include but are not limited to information derived from the EC funded European Summer Schools on Hydrogen Safety, the Joint Summer Schools on Hydrogen and Fuel Cell Technology, and the International Short Course and Advanced Research Workshop (ISCARW) series "Progress in Hydrogen Safety" (<http://hysafer.ulster.ac.uk/phs/>), where world leading experts deliver

keynote lectures on the latest knowledge, innovations, and developments in the field. The course teaching materials are constantly updated based on the latest research, including that performed by the teaching staff at Ulster.

CAREER OPPORTUNITIES

Graduates with a PgC/PgD/MSc in Hydrogen Safety Engineering will be uniquely prepared and qualified for employment opportunities in industry, engineering and safety consultancies, insurance companies, governmental bodies, research organisations, educational institutions, etc.

USEFUL LINKS

www.adbe.ulster.ac.uk
www.beri.ulster.ac.uk
<http://hysafer.ulster.ac.uk>

WANT TO KNOW MORE?

If you would like to know more about PgC/PgD/MSc Hydrogen Safety Engineering within the Faculty of Art, Design and the Built Environment please contact:

Mr Paul Brown
Programme Co-ordinator
Room 5D01
Faculty of Art, Design and the Built Environment
University of Ulster
Jordanstown campus
BT37 0QB

T: 028 9036 8114
E: p.brown@ulster.ac.uk