

PgC/PgD/MSc HYDROGEN SAFETY ENGINEERING

Do you want to enhance your career prospects? Are you interested in the development of the hydrogen economy? Are you interested in Distance Learning?

Yes? Then study Hydrogen Safety Engineering at Ulster.

ABOUT THE COURSE

Hydrogen Safety Engineering is of vital importance to the low carbon economy and use of hydrogen and fuel cell technologies. It includes, but not limited to, the study of phenomena such as unscheduled releases and dispersion of hydrogen indoor and in the atmosphere (permeation, subsonic, sonic and supersonic jets, cryogenic spills), mechanisms of ignition and autoignition, microflames and thermal loads from underexpanded jet fires, pressure loads from deflagrations and detonations, decay of blast waves, material compatibility (embrittlement, hydrogen attack), mitigation techniques, etc.

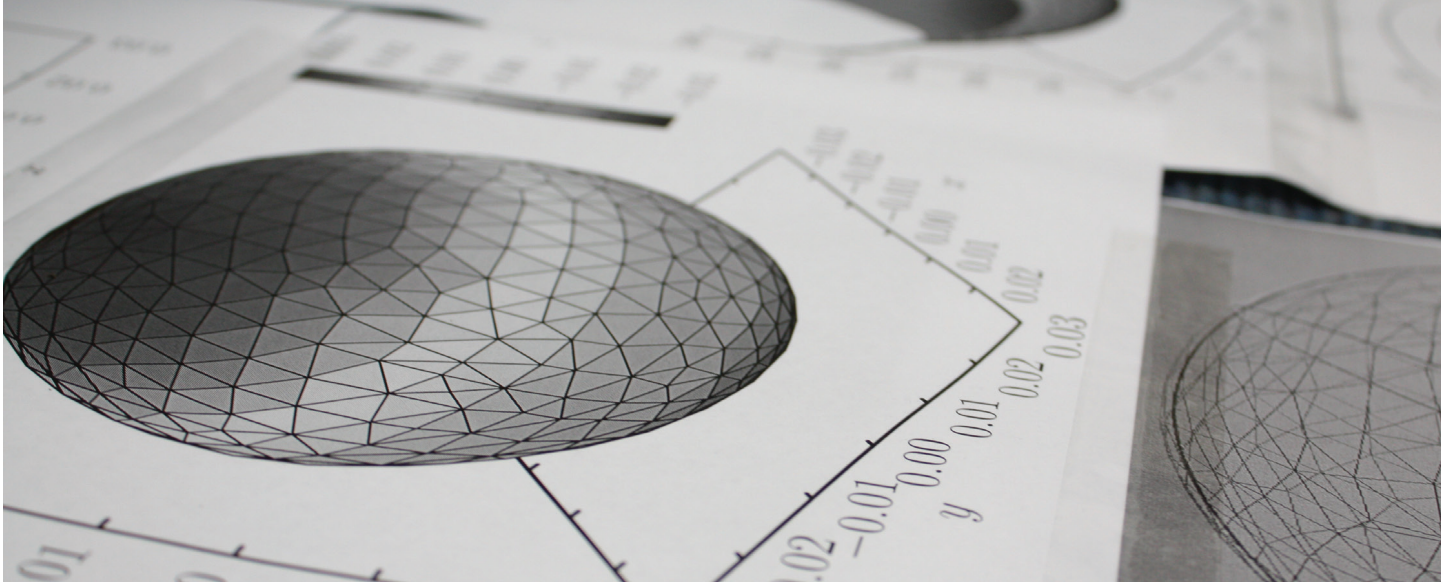
You will be able to develop safety strategies and innovative engineering solutions for variety of applications in the area of hydrogen production, storage, and transportation, as well as use of emerging hydrogen and fuel cells technologies. Last but not least you become an expert in Regulations, Codes and Standards in the field and in the unique hydrogen safety engineering framework, developed in Ulster in collaboration with world leading experts that will secure international competitiveness of your company products and 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

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.



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 about 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 Courses and Advanced Research Workshop "Progress in Hydrogen Safety", 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.

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.

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:

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