

# MPhil and PhD

HYMS offers a number of research degrees, including MPhil and PhD. These degrees are open to those from a wide range of backgrounds, both clinical and non-clinical. A PhD at HYMS takes three years full-time. You can also opt to take it part-time over six years. An MPhil takes two years full time (four years part time).



**You will be required to conduct a substantial independent research project for your PhD or MPhil, which will lead to an original contribution to knowledge. Your project topic should be in an academic area covered by one of the HYMS research centres or units.**

A very wide range of PhD and MPhil projects can be undertaken at HYMS. Current students are researching topics as diverse as the molecular mechanisms of cardiovascular disease and how dietary stresses and strains affect skull shape.

As a PhD/MPhil student at HYMS, you will also need to take part in the HYMS Postgraduate Training Scheme, which provides you with opportunities to develop your specialist and transferable skills. More information about this can be found at: <http://www.hyms.ac.uk/postgraduate/postgraduate-training-scheme.aspx>

## Applying and fees

All HYMS research centres and units are able to take MPhil and PhD students. If you would like to apply to do a research degree at HYMS you are strongly encouraged to discuss your proposed project with the appropriate head of centre or unit or potential supervisor before putting in an application. Further information about HYMS centres and units can be found on the HYMS website: <http://www.hyms.ac.uk/research>

To be eligible for admission onto a HYMS research degree you must have a good first degree. If English is not your first language, you must also have an average IELTS score of 7.0 or higher. For many PhD projects, a Masters degree is also encouraged. Your potential supervisor will be able to give you guidance on this.

Applications should be made through the online admissions system, which can be accessed via the HYMS website: <http://www.hyms.ac.uk/postgraduate/applying-for-postgraduate-study.aspx>

For information on annual fees for the HYMS programmes, please visit: <http://www.hyms.ac.uk/postgraduate/fees-bursaries-funding.aspx>

## MPhil and PhD at HYMS – Student perspective



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I have been given the opportunity to work with the medical students in practical classes and there are numerous postgraduate training courses to attend which give me transferable skills to take with me when I graduate.”

I am a PhD student working in joint collaboration between HYMS and the University of York Chemistry Department. I studied for my BSc in Forensic Chemistry at Manchester Metropolitan University. I applied for a PhD at HYMS to develop my existing skills at the same time as gaining experience in an exciting area that was brand new to me.

My work focuses on increasing the sensitivity of Magnetic Resonance Imaging (MRI) and nuclear magnetic resonance imaging (NMR). MRI and NMR use a strong electromagnetic field, aligning the protons of hydrogen atoms. Radio waves sent by the machine are returned, and different tissue types can then be identified on the resulting images. Although MRI has transformed medical imaging, both NMR and MRI have very low sensitivity. This can result in suboptimal image quality, as well as prolonging the scanning procedure for patients. In my PhD I aim to improve NMR and MRI using a technique known as SABRE (Signal Amplification by Reversible Exchange), which in turn will help clinical applications.

Being a student at HYMS is very enjoyable; staff members are friendly and my supervisors are particularly helpful. I very much look forward to the rest of my time studying at HYMS.

**Louise Highton**  
HYMS PhD student