

“A Master Class” Hibernia College & Pfizer breaking new ground with an Online Master of Science Degree in Pharmaceutical Medicine

Background and the case for ‘Master Class’!

Every year, hundreds of thousands of students graduate from universities all over the world with a Masters Degree. They graduate in the knowledge that obtaining a Masters qualification brings numerous benefits, both for themselves and for their employers. It enhances a student’s employment prospects with financial benefits and successful career progression within the workplace almost guaranteed, while also giving students a distinct advantage over colleagues who do not possess the same qualification.

Interestingly professionals within the pharmaceutical industry tend to specialise and become expert in a particular field whether it is, for example, regulatory affairs, drug discovery, pharmacovigilance or some other area. While, over many years of work through study and research they develop a great deal of expertise in their particular area, they do not always have a complete understanding of where their specialisation fits within their organisation and within the industry as a whole.

There is a very rapid transformation taking place in the pharmaceutical industry, in healthcare and in medical sciences resulting from technological advances as well as new approaches to business management. Increasing demands are placed on physicians during the research and development of new drugs, combined with new and evolving standards for the rational and safe use of medicines. Medical specialists have, until now, been unable to access the necessary training for these ever increasing demands. With rare exceptions, medical universities around the world have not prepared physicians to work in the pharmaceutical industry. Pharmaceutical medicine is a truly worldwide business with the leading players having offices, research and manufacturing facilities spread across the globe, but as you cross borders, regulations, ethics, norms and work practices change, so it is vital that prospective senior managers within the industry are exposed to these international differences and influences.

The case for a **Master of Science in Pharmaceutical Medicine** targeted at physicians & non-medical professionals in the pharmaceutical and health care industries wishing to move into leadership positions by continuing their professional development, and also at other science graduates wishing to enter the pharmaceutical and health care industries, has been growing.

An international survey of Pfizer Medical and Regulatory Managers revealed that over 80% of respondents showed an overwhelming desire for a Master of Science in Pharmaceutical Medicine that would enhance their career and their view of Pfizer as an employer. Many of Pfizer’s Medical & Regulatory Managers are MDs with significant experience but minimal formal training in Pharmaceutical Medicine. In contrast, the Master of Business Administration is an almost ubiquitous qualification for Marketing Managers and other Business Managers.

Another consideration for the pharmaceutical industry is that there are many talented medical professionals, physicians and nurses, interested in developing careers within the industry but who are unable to do so because there is no clear progression from their current positions. As such their experience and insight is lost to the industry.

Programme Outline

Studying for a Masters Degree for any student is a huge commitment and for those in employment required to attend on-site classes and tutorials, this can become extremely time consuming and stressful. In fact 78% of the survey respondents at Pfizer claimed that they have been reluctant to further their education because of the time needed to travel to class.

Hibernia College, the international third level, online college based in Dublin, currently offers a fully accredited Master of Science in Pharmaceutical Medicine. The two year programme provides an overview of all key disciplines essential for pharmaceutical industry leaders and provides students with the skills and knowledge required to be effective and productive leaders in today's challenging pharmaceutical environment. The course was initially developed under collaboration between Hibernia College and Pfizer Corporation, and is run in conjunction with faculty from Harvard University, Boston, MA, USA and the Royal College of Surgeons in Ireland. The course was developed in order to address the worldwide shortage of professional qualifications in Pharmaceutical Medicine and is accredited by the Higher Education Training and Awards Council (HETAC, www.hetac.ie), the Irish Government's statutory body for third level education in Ireland and IFAPP (International Federation of Associations of Pharmaceutical Physicians, www.ifapp.org), a Brussels based industry accreditation agency.

The course incorporates interactive online programmes offering maximum flexibility with on-site/virtual classrooms, reinforcing student integration into the learning experience. The College selects faculty with advanced expertise from around the world to create and deliver the course which is specifically designed to meet the new conditions and new educational needs of the knowledge age. The course offers students the chance to study at home, in the work place or on the road where the lessons and tutorials are available at the touch of a button using state of the art technology. Students can choose from a variety of interactive self paced study patterns and they can also take advantage of an extensive online reference library. Students can also self-select the format of the content, the content subject matter they chose to study at any given time and the amount of time they spend studying, helping to maintain commitment and to develop a much valued independent learning style. Through discussion forums and email, students can build an international student community regardless of location, time or ability to travel.

They can enjoy the flexibility and accessibility of online recorded lectures in addition to live synchronous tutorials where interaction with fellow students and direct contact with course faculty occurs. Current students confirm the advantages of this format with 95% feeling that online learning is far more flexible than classroom learning. Live classes are controlled by the teacher with the students able to contribute and speak by clicking on a "Raise a hand" button. As with an on-site classroom, important points are written by the teacher on an interactive whiteboard with all students in the class able to view this on their screens. Breakout sessions are possible as large groups of participants can be broken into smaller sections for small group collaboration during

live events. This use of technology has proved very successful with 90% of students happy with its ease of use and 88% stating that they have enjoyed the experience and would recommend the programme to others in Pfizer and other organisations.

Students also have access to an extensive online library which is not limited by the normal confines of shelf space, access terminals or desk availability. The Library offers students unrivalled access to journals, books, portals and reference tools. All of the resources are accessible 24/7 and there is also a library helpdesk with support from qualified information specialists. All resources are fully indexed and searchable from the students own PC.

Teaching in this way gives tutors the opportunity to engage innovatively with their students in an easily accessible, interactive and interesting forum for discussion, exploration and debate. The tutors find the experience innovative and refreshing, allowing them to focus and enthuse on their subject and many prefer it to the traditional teaching model.

The course consists of 10 core modules, 7 of which are online, two of which can be taken either online or on-site (the first at Harvard and the second at the Royal College of Surgeons in Ireland) and 1 advanced research based dissertation. Each online module consists of 12 x 3 hour online lessons and 12 x 1 hour live tutorials. In addition, students will be expected to spend up to 4 hours per course module per week studying readings, additional materials and preparing assignments. The core modules are as follows:

- 1) Leadership and Authority
- 2) Regulatory Affairs and Knowledge Management
- 3) Clinical Trials; Statistics and Data Management
- 4) Clinical Pharmacology and Drug Development:
- 5) Discovery of New Medicines
- 6) Health Economics and Business Administration and Medical Affairs
- 7) Safety and Risk Management
- 8) Business and Pharmaceutical Ethics
- 9) Information Technology and e-Medicine
- 10) Research Project

The course is assessed through a combination of continuous assessments, which may include essays, case studies, online discussion and multiple choice tests and end of semester examination sessions. Hibernia College is committed to establishing and maintaining the highest possible quality and standards in relation to the Examinations and Assessment process. At all stages in this process strict security and confidentiality is maintained. All examinations and assessments are run in accordance with HETAC's Marks and Standards policy.

To deliver the programme, Hibernia College uses a unique technology system, the Higher Education Learning Management System (HELMS), which combines all the benefits of accessibility and flexibility inherent in online education. This technology platform facilitates web based email, calendars, announcements and tasks providing students with a sense of campus community. HELMS also provides programme management tools that enable tutors to provide students with programme materials, discussion boards, virtual chats, online assessments and a dedicated academic resource centre on the Web. HELMS enables full interaction between the tutor and

the student and also between students including email, asynchronous discussion forums and the synchronous chat environment of the virtual classroom. Through this technology students can participate in the virtual classroom seeking help from fellow students in the discussion forum, emailing their tutor seeking clarification of requirements for the assignment, studying the lesson in preparation for the tutorial, visiting the library to access the recommended reading and attending the live online tutorial.

Feedback & evaluation

Industry recognition through IFAPP guarantees that this course is relevant and valuable to employers. Participants on the programme support this recognition with 95% claiming the course was highly relevant to their career development and had increased their understanding of the global pharmaceutical industry. 95% of the students also feel that the course had given them a professional advantage and competitive edge over their peers.

The business benefits to Pfizer are also evident. Within Pfizer, selection for enrolment on this programme is viewed by employees as a very definite reward. While it is too early to be sure of the long term retention benefits, 76% of current students on this course state that they feel valued by their company suggesting that they will feel encouraged to remain with a company that has invested in them.

In addition, one of the driving forces for Pfizer in developing this programme with Hibernia College was to promote pharmaceutical medicine as a distinct academic discipline that not only has academic merit but also improves business performance. By producing over 40 graduates per year, the course is helping to meet this objective by delivering highly qualified business aware professionals in to the industry.

Summary

This Master of Science in Pharmaceutical Medicine provides a unique truly blended online learning experience which serves to benefit all participants with an increased professional development that meets the new conditions and new educational needs of the knowledge age.

It provides a fuller understanding of the industry from discovery of new medicines, through trials and regulatory issues to the marketing and monitoring of products. Then, with a better appreciation of where they fit in to the product life cycle, in their organisation and in the industry, students of this Masters should be able to perform more efficiently with a new focus not just on their own tasks, but also the contribution they make to helping their organisations achieve their strategic goals.

There was a clear, demonstrable need for the creation of this blended online course, bringing various elements together in a highly engaging, interactive and enjoyable programme. The application of learning technologies has helped 'add value' as evidenced from the feedback gathered so far. Critically the course has provided an opportunity for personal growth and career development, while at the same time offering tangible business benefits to Pfizer.

A complete list of accredited postgraduate Pharmaceutical Medicine courses is available at www.ifapp.org