


<b>Full Title</b>	Regulatory Affairs & Compliance Auditing		
<b>Status</b>	Uploaded to Banner	<b>Start Term</b>	2015
<b>NFQ Level</b>	07	<b>ECTS Credits</b>	10
<b>Module Code</b>	SCIE07009	<b>Duration</b>	Stage - (26 Weeks)
<b>Grading Mode</b>		<b>Department</b>	Physical & Life Sciences
<b>Module Author</b>	Seamus Lennon		

### Module Description

This module covers relevant pharmaceutical and medical device legislation and Good Manufacturing Practice guidelines (EU & FDA). The various approaches taken to compliance auditing are covered.

<b>Learning Outcomes</b>	
	<b><i>On completion of this module the learner will/should be able to:</i></b>
1.	Interpret the EU and FDA GMP guidelines and relevant ISO standards.
2.	Explain the legislative requirements during the various drug development and medical device development phases.
3.	Explain how a marketing authorization for pharmaceuticals and medical devices is obtained in the EU and the US.
4.	Detail the various approaches taken to compliance auditing.
5.	Detail a system for investigation of non-conformances, identification of root cause and corrective / preventive actions.
6.	Participate in an audit by interpreting relevant legislation and guidelines, identifying any non-conformances and recommend relevant corrective / preventive actions.

### Indicative Syllabus

Pharmaceutical and Medical Device regulatory affairs – legislation and guidelines.  
 Quality Management systems that ensure compliance with relevant legislation and guidelines.  
 Marketing authorization processes for medical devices and pharmaceuticals.  
 Audit methodologies and tools.  
 Interpretation of GMP and ISO guidelines.  
 Case studies – performance of audits, audit reporting.  
 Actions to rectify non-conformances – identification of root cause, corrective actions, preventive actions.

### Teaching and Learning Strategy

Material is delivered via lectures and tutorials. Use is made of team work, presentations, and project based work.

### Assessment Strategy

Project based assessment, case studies, in class assessment

### Repeat Assessment Strategies

In compliance with policy

<b>Indicative Coursework and Continuous Assessment:</b>		<b>50 %</b>		
<b>Form</b>	<b>Title</b>	<b>Percent</b>	<b>Week (Indicative)</b>	<b>Learning Outcomes</b>
Assessment	Assessment	10 %	Week 10	1,2,3,4,5,6
Project	Project	15 %	Week 10	1,2,3,4,5,6
Project	Project	15 %	Week 22	1,2,3,4,5,6
Assessment	Assessment	10 %	Week 22	1,2,3,4,5,6

<b>End of Semester / Year Formal Exam:</b>		<b>50 %</b>		
<b>Form</b>	<b>Title</b>	<b>Percent</b>	<b>Week (Indicative)</b>	<b>Learning Outcomes</b>
Closed Book Exam	Final Exam	50 %	End of Term	1,2,3,4,5,6

<b>Full Time Delivery Mode Average Weekly Workload:</b>			<b>3.00 Hours</b>		
<b>Type</b>	<b>Description</b>	<b>Location</b>	<b>Hours</b>	<b>Frequency</b>	<b>Weekly Avg</b>
Lecture	Lecture	Tiered Classroom	3	Weekly	3.00

#### **Recommended Reading Book List**

Tobin, J., (2011). *Medical Product Regulatory Affairs: Pharmaceuticals, Diagnostics, Medical Devices*. Wiley-Blackwell.

Weinberg, S., (2011). *Cost-Contained Regulatory Compliance: For the Pharmaceutical, Biologics, and Medical Device Industries*. Wiley.

#### **Literary Resources**

Tobin, J & Walsh, G (2008). *Medical product regulatory affairs: pharmaceuticals, diagnostics, medical devices*. Wiley-Blackwell.

Weinberg, S. (2011) *Cost-contained regulatory compliance: for the pharmaceutical, biological and medical device industries*. Wiley

Medical devices: quality management systems: guidance on the application of ISO 13485. International Organization for Standardization. 2003.

Relevant EU and US Legislation and Guidelines.

#### **Online Resources**

International Organization for Standardization [www.iso.org](http://www.iso.org)

Food and Drug Administration [www.fda.gov](http://www.fda.gov)

Irish Medicines Board [www.imb.ie](http://www.imb.ie)

European Medicines Agency [www.emea.europa.eu](http://www.emea.europa.eu)

International Council for Harmonization [www.ich.org](http://www.ich.org)

#### **Other Resources**

Medical devices: quality management systems: guidance on the application of ISO 13485. International Organization for Standardization. 2003.

Relevant EU and US Legislation and Guidelines.

#### **Programme Membership**

GA\_SQRAG\_S07 201500 Certificate in Science in Quality & Regulatory Affairs

GA\_SQUAG\_B07 201400 Bachelor of Science in Quality for Industry