

## School's Response to Recommendations (AUDIT OF PROGRAMMES)

### Programme Titles:

SG\_SBIOP\_M09 Masters in Bioprocessing (90 credits)

SG\_SBIOP\_G09 Postgraduate Diploma in Bioprocessing (60 credits)

**Attendance:** Annica Rasmark, Jerry Bird, James Brennan

*Amanda Harrision (note taker), School of Business and Social Sciences*

**Date:** 17<sup>th</sup> November 2016

Recommendations	Response to recommendations
	<p>Sharon Barrett emailed all lectures involved in module development and asked them to read the panel report and implement any recommendations or suggested changes to relevant modules. All lecturers agreed they would implement if possible the recommendations above and have made suggested changes to modules as outlined below.</p> <p style="text-align: center;"><b>Suggestions for Individual modules</b></p> <p>BIO09066 Bioprocess manufacturing and BIO09067 Biocontamination Monitoring and Control. The panel believed there was an excessive amount of learning outcomes and if all outcomes are to be assessed it could be difficult for students to achieve the outcomes. Action. Lecturer believes upon review that all learning outcomes are necessary and <b>no action has been taken.</b></p> <p>BIO09069 Bioanalytical Techniques . The panel suggested that a dry lab be included as part of the assessment of the module. <b>Action</b> Sharon Barrett has updated the module descriptor to reflect that a dry lab will be included.</p> <p>BIO09068 Bioanalytics Practical Module. Panel suggested reference to BIO09069 Bioanalytical Techniques should be</p>

	<p>corrected. <b>Action</b> Sharon Barrett has corrected the error.</p> <p>VALD09005 Validation. Panel suggested that clean validation was included and all students write validation programmes. <b>Action</b> clean validation has been included in the syllabi and written validations programmes have been included in the assessment process.</p> <p>SCIO9004 Leg. Reg Biopharma. The assessment breakdown should be corrected and this <b>action has been completed</b>.</p> <p>BIO09065 Formulation and Delivery. The recommendation was to consider excipients that may pose problems for people with diabetes for example...this can easily be incorporated into the existing learning outcome on 'the key principles of preformulation' where excipient choice is covered. Lecturer intends to cover within an existing learning outcome on 'the key principles of preformulation' so <b>no changes</b> have been made to the module.</p> <p>BIO09062 Research Methods Biopharma. Was advised to add in a learning outcome on ethical considerations. <b>Action completed</b>.</p> <p>Sharon Barrett has revised the Programme Documentation to reflect the above changes.</p>
<p>1. Periodically evaluate MCQ and the effectiveness of this assessment model for a L9 programme.</p>	<p>See above.</p>
<p>2. Review induction process and ensure that students, which come from diverse backgrounds where there could be deficit, are given access to academic direction and tutorials</p>	<p>See above.</p>
<p>3. Ethical issues that might arise in the industry should be discussed in lectures or seminars</p>	<p>See above.</p>
<p>4. Learning outcomes and assessments need to be updated where errors made.</p>	<p>See above.</p>
<p>5. All learning outcomes have to be achieved for a student to be successful. If not achievable, learning</p>	<p>See above.</p>

outcomes need to be reduced and reformulated.	
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Conditions	Response to Conditions
<p>1. Match Programme Learning Outcomes to the QQI indicators for Science L9. Useful for staff to meet and discuss these outcomes.</p>	<p>Sharon Barrett has completed Condition 1 and matched the programme learning outcomes to the QQI indicators. A new Table has been included in the Programme Documentation and a copy has been provided for the Audit in Appendix 1.</p>
<p>2. Rewrite syllabi where necessary to include quality assurance as part of quality systems.</p>	<p>BIO09067 Biocontamination Monitoring and Control has updated module to reflect quality assurance content of the module.</p> <p>SCIO9004 Leg. Reg Biopharma. has updated module to reflect quality assurance content of the module.</p>

**Condition 1; Matching Programme Learning Outcomes for the MSC and PGD to the QQI indicators for Level 9 Science Programmes**

Strand	Sub-strand	QQI indicators for L9 Science Programme	MSC and PGD Bioprocessing indicators
Knowledge	Breadth	A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning	Have detailed knowledge and understanding of a wide range of bioprocessing areas/activities and the manner in which these are combined in the biopharmaceutical product life cycle. Have a thorough understanding of upstream/downstream and fill-finish processes and associated regulatory framework. Have a thorough understanding of other selected support services which may include some of the following: biopharmaceutical manufacturing facilities/utilities and biopharmaceutical analysis.
	Kind	A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning	Have detailed knowledge and understanding of a wide range of bioprocessing areas/activities and the manner in which these are combined in the biopharmaceutical product life cycle.
Know-How & Skill	Range	Demonstrate a range of standard and specialised research or equivalent tools and techniques of enquiry	Be able to employ appropriate advanced data analysing, synthesising, summarising and research skills to evaluate critical aspects of biopharmaceutical processing.
	Selectivity	Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques	Be able to interpret important processing parameters with a view to problem solving and making decisions in a timely and competent manner.
Competence	Context	Act in a wide and often unpredictable variety of professional levels and ill defined contexts	Be able to interpret important processing parameters with a view to problem solving and making decisions in a timely and competent manner. Formulate, present and defend scientific information findings in a variety of forms to the bioprocessing industry, regulatory agencies, medical care systems, internal personnel and the public.
	Role	Take significant responsibility for the work of individuals and groups; lead and initiate activity	Formulate, present and defend scientific information findings in a variety of forms to the bioprocessing industry, regulatory agencies, medical care systems, internal personnel and the public. Work effectively in a bioprocessing environment: Be able to demonstrate technical and management skills. Be able to work independently. Be able to work effectively in a team.
	Learning to Learn	Learn to self-evaluate and take responsibility for continuing academic/professional development	Have an appreciation of the complexity and fluidity of biopharmaceutical processes, prescribed regulatory framework and selected support activities. Formulate, present and defend scientific information findings in a variety of forms to the bioprocessing industry, regulatory agencies, medical care systems, internal personnel and the public. Be able to apply concepts and skills learnt in a variety of contexts.
	Insight	Scrutinise and reflect on social norms and relationships and act to change them	Be able to apply concepts and skills learnt in a variety of contexts. Have an appreciation of the complexity and fluidity of biopharmaceutical processes, prescribed regulatory framework and selected support activities. Formulate, present and defend scientific information findings in a variety of forms to the bioprocessing industry, regulatory agencies, medical care systems, internal personnel and the public.

All recommendation reviewed by the Quality Manager and this concludes the QA process.

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\_\_17/11/2016\_\_

Annica Rasmak,  
Education Development and Quality Manager

Date