



<b>Module Title:</b>	Pharmaceutical Microbiology
<b>Academic year:</b>	2009 2010
<b>Credit Value:</b>	7
<b>Pre- requisites:</b>	None
<b>Assessment:</b>	Final written exam: 50% Practical Assessment: 35% Continuous Assessment: 15%.
<b>Aims</b>	This module aims to provide the student with: the essential features of microbiology relevant to the pharmaceutical industry.
<b>Module Content</b>	Microbial ecology and the spoilage of pharmaceutical products Introduction to cleanroom technology  Quantification of viable microorganisms  Identification of common microbial types  Sterilisation  Disinfection and cleaning  Water as a critical ingredient and source of bacteria: Microbiological standards in the pharmaceutical industry:

**Intended Learning Outcomes:**  
(September 2007)

- Having successfully completed this subject the student will:
- Be able to identify the key growth parameters required by micro-organisms
  - Be able to identify the cause of spoilage of pharmaceutical products.
  - Be able to appreciate the importance of product formulation in terms of control of spoilage.
  - Be able to enumerate micro-organisms.
  - Be able to identify common bacteria.
  - Be able to understand the principles and commonly used methods of sterilisation used in the pharmaceutical industry
  - Be familiar with cleanroom technology used to prevent contamination of pharmaceutical products
  - Be able to source and interpret relevant standards.