

# BTEC Professional Diploma (Aseptic Services)



Following the highly successful BTEC post-qualification course for pharmacy technicians in Clinical Pharmacy, the University have developed a similar course to meet the specific needs of hospital and commercially-based technicians working in aseptic manufacturing and compounding units.

The University commenced this programme in September 2003 in collaboration with colleagues in the South Derbyshire Acute Hospitals NHS Trust.

## Course structure

The course structure comprises of the following five modules studied over 2 years:

- Medicines legislation and professional practice in aseptic services
- Introduction to pharmaceutical microbiology
- Theory and practice of aseptic compounding
- Understanding aseptically prepared products
- Specialist pharmacy practice

Delivery is by distance learning and students are able to study entirely within their own workplace. Students will be members of a cohort progressing according to a prescribed timetable. The student must be working in an approved work place and have the support of a local mentor. Each module is delivered via the University web-site, using a comprehensive Learning pack which includes teaching material, directed reading and exercises for the student to complete. Mentors will also have access to the web-site to help them support their students.

## Course content:

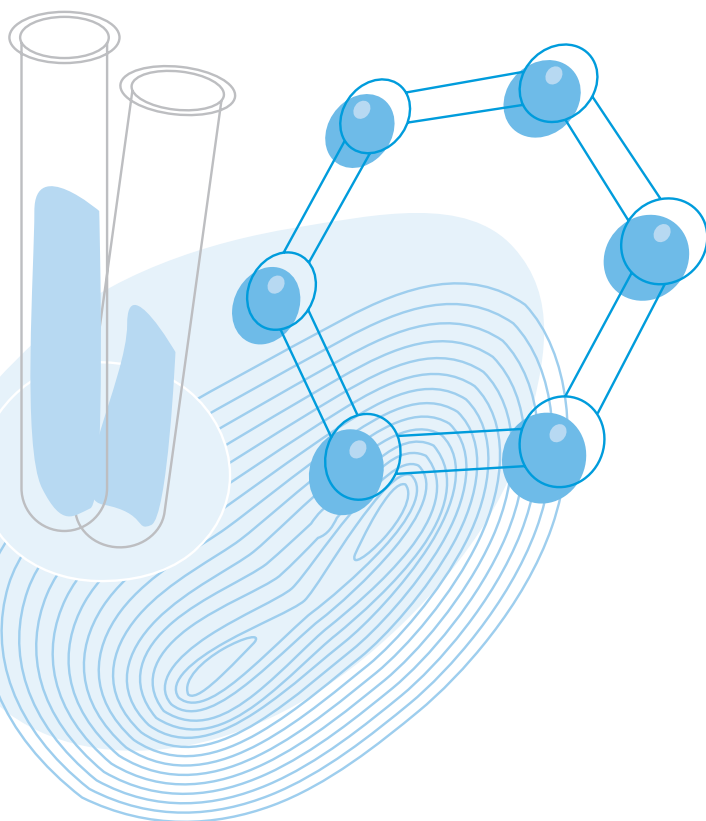
The modules will include learning material covering the following areas:

### *Medicines legislation and professional practice in aseptic services*

- medicines legislation relevant to aseptic services;
- arrangements for licensing;
- Medicines Act;
- licensed and unlicensed facilities;
- The Orange Guide;
- role of MCA and the inspectorate;
- quality management;
- clinical governance and controls assurance;
- roles and responsibilities of pharmacists, technicians etc;
- quality assurance and aseptic operations;
- the Farwell report

### *Introduction to pharmaceutical microbiology*

- classification of micro-organisms;
  - bacteria,
  - moulds and fungi,
  - protozoa,
  - viruses.
- cell structure and function;
  - size and shape,
  - structure,
  - bacterial spore,
  - gram positive and negative.
- growth of bacteria;
  - nutritional requirements,
  - temperature requirements,
  - atmospheric requirements,
  - pH requirements,
  - the bacterial growth curve.
- sources and control of microbial contamination;
  - physical methods of control,
  - chemical methods of control.
- sterilisation (theory, methods);
  - disinfection, cleaning and gassing,
  - validation of sterilisation,
  - maintenance of sterilisation.
- hygiene and minor infection



### *Theory and practice of aseptic compounding*

- clean facilities;
  - HEPA and ULPA filters,
  - aseptic filling areas,
  - biohazard cabinets,
  - microbiological clean benches,
  - biohazard levels.
- design, operation and maintenance of clean rooms;
- airborne particulates – origins and control, filtration, clothing;
- working in aseptic facilities;
  - correct gowning procedures,
  - sterile gowning,
  - personal hygiene,
  - general practices.
- transfer equipment and disposables;
- training and procedures;
- documentation;
- standards and their maintenance, commissioning and release;
- QA and QC in aseptics;
  - the sterility suite,
  - air sampling,
  - fallout methods,
  - surface sampling,
  - sterile media fill tests,
  - microbiological assessment of liquids,
  - microbiological assessment of solids,
  - alert and action levels.
- risk management, Health and safety aspects, audit.

### *Understanding aseptically prepared products*

- basic organic and inorganic chemistry of drugs;
- understanding drug stability and degradation, compatibility, precipitation;
- issues associated with aseptic compounding of, for example: antibiotics, cytotoxics, PNI, and gene therapies;
- routes and methods of administration;
- Infusion equipment and systems;
- ambulatory systems;
- Hi-tech Home care;
- policies and procedures in clinical areas.

### *Specialist pharmacy practice*

Student directed, based on a relevant subject chosen by the student, in conjunction with the local tutor and module leader, and prescribed in a learning contract.

## Entry requirements

Qualified pharmacy technician (or equivalent) with a minimum of two years post-qualification experience., including aseptic work.

## Assessment

By course work, including time controlled tests, assignments, case studies and other practical activities.

## Commencement date

September of each year.

## For more information please contact

For an information pack please contact:

University of Derby,  
Student Office,  
Western Road,  
Mickleover,  
Derby DE3 9GX

**Tel: 01332 592039**

## To discuss the programme please contact

*Mike Allwood,*  
Programme Leader

**E-mail: [m.c.allwood@derby.ac.uk](mailto:m.c.allwood@derby.ac.uk)**

*Helen Martin,*  
Assistant Programme Leader

**Tel: 01332 592016**

**E-mail: [h.j.martin@derby.ac.uk](mailto:h.j.martin@derby.ac.uk)**