

## Higher National Unit specification

### General information for centres

**Unit title:** Human Pathological Processes

**Unit code:** F1BP 35

**Unit purpose:** This Unit is designed to allow candidates to understand and explain the factors that lead to disease and how they affect the major systems of the body. Candidates will also be able to understand and evaluate the different approaches that are used by Complementary Therapists to support the treatment of diseases and/or contribute to an enhanced quality of life for their client.

On completion of the Unit the candidate should be able to:

- 1 Describe and explain the cellular and tissue responses to damage and the causes that underpin these.
- 2 Describe and explain the disease processes that affect the major body systems.
- 3 Evaluate the need for an evidence-based approach in the use of Complementary Therapy to support treatment of disease and injury.

**Credit points and level:** 2 HN credits at SCQF level 8: (16 SCQF credit points at SCQF level 8\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** Candidates must be able to demonstrate knowledge and understanding of basic human anatomy and physiology, the effect of diet on health and disease and an understanding of the process of growth and development. This can be demonstrated by achievement of the Higher National Units Anatomy and Physiology, Life Style Advice for Clients or equivalent.

**Core Skills:** There are opportunities to develop the Core Skills of Problem Solving and Written Communication in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** The assessment for Outcome 1 should be a closed-book exam (multiple choice and short answer questions). The assessment for this Outcome will be on a sample basis and candidates will not know in advance the items on which they will be assessed. A series of (four) case studies will cover Outcome 2 and Outcome 3 and these will be on a sample basis.

## Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### Outcome 1

Describe and explain the cellular and tissue responses to damage and the causes that underpin

#### Knowledge and/or Skills

- ◆ Identify and explain the cellular adaptations to disease
  - Pathological stimuli that cause changes in the cellular environment
  - The adaptive response in disease (changes in cellular activity, changes in cell morphology)
  - Neoplasia
  - Cell injury and death (apoptosis and necrosis, ageing)
- ◆ Identify and explain the tissue responses to damage
  - Acute & chronic inflammation and regeneration
- ◆ Identify and explain genetic factors in disease
  - Chromosomal abnormalities, gene defects, sex-linked diseases
- ◆ Identify and explain the environmental and immunological factors in disease
  - Immunodeficiency, inappropriate immune response, hypersensitivity, infection (fungal, viral, bacterial), traumatic injuries
- ◆ Link the causative factors of disease to the physiological responses
  - Explain the development of signs and symptoms of a disease

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can provide on a sample basis:

- ◆ cellular and tissue responses to disease through explanation of the knowledge requirements listed above

The assessment of this Outcome should be through a closed-book examination, which should comprise of at least 20 short answer questions. The assessment should be conducted on a sample basis and the candidate should not be aware of the content of the exam beforehand. The sample questions should be drawn in equal amounts from each of the knowledge requirements outlined above.

#### Assessment Guidelines

This assessment method is aimed at ensuring the candidate understands the basic knowledge requirements and can explain them in a coherent manner.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Human Pathological Processes

### Outcome 2

Describe and explain the disease processes that affect the major body systems.

#### Knowledge and/or Skills

- ◆ Apply and define the meaning of the correct and appropriate medical and scientific terminology when describing a disease process and the related signs/symptoms
- ◆ Candidates should be able to describe the typical disease processes that occur within the major systems of the body, including:
  - Cardiovascular  
Oedema, thrombus formation, embolism, infraction, shock, vascular disease, hypertension, hypotension, infective cardiac diseases
  - Respiratory  
Respiratory failure, vascular and haemodynamic disease, infective diseases, obstructive and restrictive diseases, neoplasia
  - Digestive  
Oesophageal, stomach and intestinal pathology, vascular bowel disease, neoplasia, liver, biliary tract and pancreatic disease
  - Urinary  
Renal disease (infective, necrotic, toxic, metabolic), lower urinary tract diseases, neoplasia
  - Endocrine  
Diseases associated with over or under production of hormones that are produced from the pituitary, thyroid, parathyroid and adrenal glands
  - Muscular  
Muscular dystrophies, myopathies, neurogenic disorders
  - Nervous  
Cerebrovascular disease (infective and inflammatory), neurodegenerative, demyelinating disorders
  - Skeletal  
Metabolic bone disease and neoplasia. Diseases of joints, tendons and soft tissue (inflammatory and autoimmune, trauma)

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can provided on a sample basis:

- ◆ the characteristic disease processes of the major systems of the body
- ◆ a description of the disease process using the correct medical and scientific terminology

This will be through a closed-book, supervised assessment comprising 20 extended response questions where all major systems listed must be covered but the diseases will be sampled but must include two from each system.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Human Pathological Processes

### **Assessment Guidelines**

The assessment should ensure candidates have a good knowledge of the disease process in each of the systems.

### **Outcome 3**

Evaluate the need for an evidence-based approach in the use of Complementary Therapies to support treatment of disease and injury

### **Knowledge and/or Skills**

- ◆ Demonstrate the importance of evidence-based practice as it applies to Complementary Therapies
- ◆ Review, analyse, evaluate the literature surrounding the efficacy of Complementary Therapies
- ◆ Discuss therapy intervention in alleviating the symptoms of disease or as a supplement to clinical treatments to the diseases studied:
  - conducting effective literature searches
  - referencing research material

### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ apply the knowledge of evidence-based practice in the field of Complementary Therapies
- ◆ evaluate the concept of evidence-based therapies that are generally used to alleviate the signs, symptoms and diseases studied in Outcome 2

This will be evidenced through a case study scenario analysis including all points in the knowledge and/or skills above.

### **Assessment Guidelines**

The research resources should be referenced.

The assessment should include a detailed analysis and discussion of how Complementary Therapies can effectively alleviate the signs and symptoms, supplement clinical treatment or contribute to the patients quality of life. Recommendation of any Complementary Therapy must be based upon evidence of the efficacy of the treatment. This assessment process aims to ensure that candidates begin to understand the need for an evidence based approach to their work.

## Administrative Information

**Unit code:** F1BP 35

**Unit title:** Human Pathological Processes

**Superclass category:** PB

**Original date of publication:** February 2007

**Version:** 01

### History of changes:

Version	Description of change	Date

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title:** Human Pathological Processes

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

### **Guidance on the content and context for this Unit**

This Unit is intended to provide candidates with a broad knowledge and understanding of the scope, defining features and main areas of pathology. At the end of this Unit, candidates will understand the factors that lead to disease and how they affect the major systems of the body. This knowledge aims to enhance the skills of the complementary therapist by providing a scientific awareness of the limitations of the human body and the major disease processes that alters normal physiological function. Candidates will also be able to understand and evaluate the different approaches that are used by Complementary Therapists to support the treatment of diseases and/or improve the quality of life of their clients. The purpose of this Outcome is to encourage candidates to adopt a process of critical enquiry within their field of study and to understand the concept of an evidence based approach. The content of the Unit is such that it assumes candidates have experience of anatomy and physiology gained in previous Unit(s). The Unit terminology is scientific and clinical in nature and it is important that students become comfortable and competent in the use of these terms. Therefore, the correct terminology should be an integral part of the learning, teaching and assessment process.

### **Guidance on the delivery and assessment of this Unit**

**Outcome 1** focuses on cells and tissues and pathological changes caused by disease.

**Outcome 2** focuses on the major systems of the body and how the disease process affects them.

**Outcome 3** focuses on an evidence-based approach to Complementary Therapies.

In order to achieve this Unit, candidates are required to present sufficient evidence that they have met all the knowledge requirements for each Outcome within the range specified. Details of these requirements are given for each Outcome. The assessment instruments should follow the guidance offered by the SQA assessment model and an integrated approach to assessment is encouraged.

Accurate records should be made of the assessment instruments used showing how evidence is generated for each Outcome and marking schemes should also be provided. Records of candidate achievements should be kept and these records will be available for external verification.

#### ***Opportunities for developing Core Skills***

Candidates should be encouraged in the use of Information Technology as they develop their knowledge and skills within this Unit. Problem Solving can be developed through Outcome 3 where the candidate will review, analyse and evaluate. Written Communication can also be developed.

## **Higher National Unit specification: support notes (cont)**

**Unit title:** Human Pathological Processes

### **Open learning**

If this Unit is delivered by open learning methods, additional planning resources may be required for candidate support, assessment and quality assurance. For further information and advice please refer to *Assessment and Quality Assurance for Open and Distance Learning (SQA, February 2001 — publication code A1030)*.

### **Candidates with disabilities and/or additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).

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In order to achieve this Unit, you will be required to present sufficient evidence that you have met all the knowledge requirements for each Outcome within the range specified.

The assessments you will undertake will be in the form of short and extended response questions and a research based case study.