



Higher National unit specification

General information

Unit title: Human Pathological Processes (SCQF level 8)

Unit code: HL8X 35

Superclass: PB

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Source: Scottish Qualifications Authority

Version: 01

Unit purpose

This unit is designed to enable learners to gain an understanding and explain the factors that lead to disease and how they affect the major systems of the body. Learners 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.

Learners undertaking this unit should have knowledge of basic human anatomy and physiology the effects of diet on health and disease and an understanding of the process of growth and development.

Outcomes

On successful completion of the unit the learner will 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 Therapies to support treatment of disease and injury.

Credit points and level

2 Higher National unit credits at SCQF level 8: (16 SCQF credit points at SCQF level 8)

Higher National unit Specification: General information (cont)

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Recommended entry to the unit

It is essential that learners 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 *Human Anatomy and Physiology for Beauty* and *Complementary Therapist* and, *Life Style Advice for Clients* and/or equivalent.

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this unit specification.

There is no automatic certification of Core Skills or Core Skill components in this unit.

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.

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Higher National unit specification: Statement of standards

Unit title: Human Pathological Processes (SCQF level 8)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

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. Learners 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 these.

Knowledge and/or Skills

- ◆ 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)
- ◆ Tissue response to damage:
 - Acute and chronic inflammation and regeneration
- ◆ Genetic factors in disease:
 - Chromosomal abnormalities, gene defects, sex-linked diseases
- ◆ Environmental and immunological factors in disease:
 - Immunodeficiency, inappropriate immune response, hypersensitivity, infection (fungal, viral, bacterial), traumatic injuries
- ◆ Link(s) between causative factors of disease to the physiological response:
 - The development of signs and symptoms of a disease

Outcome 2

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

Knowledge and/or Skills

- ◆ The correct and appropriate medical and scientific terminology when describing a disease process and the related signs/symptoms
- ◆ 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

Higher National unit specification: Statement of standards (cont)

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- 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)

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

- ◆ The importance of evidence-based practice as it applies to Complementary Therapies:
 - The literature surrounding the efficacy of Complementary Therapies
- ◆ Therapy intervention used to support alleviating the symptoms of disease or as a supplement to clinical treatments to the diseases studied:
 - conducting effective literature searches
 - referencing research material
- ◆ Review, analysis and evaluation methods

Evidence Requirements for this unit

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills across all Outcomes by showing that they can:

Outcome 1

Answer short answer structured questions in closed-book conditions. The assessment for this Outcome will be on a sample basis. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

The sample questions should be drawn in equal amount from each of the Knowledge and Skills areas identified.

- ◆ Identify and explain the cellular adaptations to disease.
- ◆ Identify and explain the tissue responses to damage.
- ◆ Identify and explain genetic factors in disease.
- ◆ Identify and explain the environmental and immunological factors in disease.
- ◆ Link the causative factors of disease to the physiological responses by explaining the developmental signs and symptoms of a disease.

Higher National unit specification: Statement of standards (cont)

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Outcome 2

Answer extended response structured questions in closed-book conditions. The questions set must enable learners to demonstrate their knowledge of:

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

Questions must cover all major body systems identified — cardiovascular, respiratory, digestive, urinary, endocrine, muscular, nervous and skeletal. Diseases should be assessed on a sample basis, but must include two from each body system.

Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 3

Complete a case study scenario analysis in open-book conditions. The assessment set must enable learners to:

- ◆ 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 support the treatment of the signs, symptoms and diseases studied in Outcome 2.

Learner response must 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 learners begin to understand the need for an evidence based approach to their work.



Higher National unit Support Notes

Unit title: Human Pathological Processes (SCQF level 8)

Unit Support Notes are offered as guidance and 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 learners with a broad knowledge and understanding of the scope, defining features and main areas of pathology. At the end of this unit, learners will understand the factors that lead to disease and how they affect the major systems of the body.

Learners 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 learners 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 learners 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.

Assessors should keep in mind that overall, the work should meet SCQF level 8 criteria. <http://scqf.org.uk/the-framework/scqf-levels/>. Learners should have a clear understanding of these requirements.

Guidance on approaches to delivery of this unit

It is recommended that an induction to the unit be given enabling the learner to understand fully what is required and the approaches which will be adopted.

Outcome 1 focuses on cells and tissues and pathological changes caused by disease; Outcome 2 on the major systems of the body and how the disease process affects them and Outcome 3 on an evidence-based approach to Complementary Therapies. Topics included in each Outcome will therefore have a natural flow which supports the learning and teaching process.

Higher National unit Support Notes

Unit title: Human Pathological Processes (SCQF level 8)

A learner-centred participative approach should be adopted to reflect the SCQF level of this unit. Delivery methods could include:

- ◆ Tutorials supported by handouts
- ◆ Research
- ◆ Group work and discussion
- ◆ Visiting speakers
- ◆ Reflection and evaluation

Learners should be made aware that overall, their work should meet SCQF level 8 criteria and have a clear understanding of these.

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

The Evidence Requirements are fully expressed in the mandatory section of this unit Specification.

Outcome 1 — Short answer structured questions in closed-book conditions.

Outcome 2 — Extended response structured questions in closed-book conditions.

Outcome 3 — Case study scenario analysis in open-book conditions.

Where Evidence Requirements for Outcomes stipulate sampling, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Assessment must allow the learner to demonstrate competence at the level of the qualification and provide an opportunity for evidence of each learner's performance to be generated and assessed. This evidence must then be judged against the standards set out in the unit specification. To achieve a unit, learners must generate the evidence required in relation to all Outcomes. This information is found in the Statement of Standards in the relevant unit specification.

Assessors should keep in mind that overall, the work should meet SCQF Level 8 criteria. <http://scqf.org.uk/the-framework/scqf-levels/>

Accurate records should be made of the assessment instruments used showing how evidence is generated for each Outcome. Marking schemes should also be provided.

Learner assessment responses and records of learner achievement should be retained. These records should be available for external verification.

Higher National unit Support Notes (cont)

Unit title: Human Pathological Processes (SCQF level 8)

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

Communication skills are not formally assessed however learners will be expected to present written communication to an acceptable professional standard reflective of the SCQF level of the unit.

Learners should be encouraged in the use of *Information and Communication Technology (ICT)* as they develop their knowledge and skills within this unit. Aspects of *Problem Solving* can be developed within Outcome 3 where the learner will review, analyse and evaluate.

History of changes to unit

Version	Description of change	Date

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General information for learners

Unit title: Human Pathological Processes (SCQF level 8)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

You will be provided with a broad knowledge and understanding of the scope, defining features and main areas of pathology. At the end of this unit, you will understand the factors that lead to disease and how they affect the major systems of the body.

You 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 you to adopt a process of critical enquiry within your field of study and to understand the concept of an evidence based approach.

The content of the unit assumes you 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 you become comfortable and competent in the use of these terms.

To successfully achieve this unit you will need to demonstrate your knowledge by presenting sufficient evidence that you have met all the Evidence Requirements for each Outcome as detailed in the unit Specification. Methods of assessment are detailed below:

Outcome 1 — Short answer structured questions in closed-book conditions.

Outcome 2 — Extended response structured questions in closed-book conditions.

Outcome 3 — Case study scenario analysis in open-book conditions.

Key areas of knowledge will be:

Outcome 1

- ◆ 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)
- ◆ Tissue response to damage:
 - Acute and chronic inflammation and regeneration
- ◆ Genetic factors in disease:
 - Chromosomal abnormalities, gene defects, sex-linked diseases
- ◆ Environmental and immunological factors in disease:
 - Immunodeficiency, inappropriate immune response, hypersensitivity, infection (fungal, viral, bacterial), traumatic injuries
- ◆ Link(s) between causative factors of disease to the physiological response:
 - The development of signs and symptoms of a disease

General information for learners (cont)

Unit title: Human Pathological Processes (SCQF level 8)

Outcome 2

- ◆ The correct and appropriate medical and scientific terminology when describing a disease process and the related signs/symptoms
- ◆ 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
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Outcome 3

- ◆ The importance of evidence-based practice as it applies to Complementary Therapies:
 - The literature surrounding the efficacy of Complementary Therapies
- ◆ Therapy intervention used to support alleviating the symptoms of disease or as a supplement to clinical treatments to the diseases studied:
 - conducting effective literature searches
 - referencing research material
- ◆ Review, analysis and evaluation methods

You will be encouraged in the use of *Information and Communication Technology (ICT)* as you develop your knowledge and skills within this unit. Aspects of *Problem Solving* can be developed within Outcome 3 where you will review, analyse and evaluate.

Communication skills are not formally assessed however you will be expected to present written communication to an acceptable professional standard reflective of the SCQF level of the unit.