



National Unit Specification: general information

UNIT Christianity: Belief and Science (Intermediate 2)

CODE F59Y 11

COURSE Religious, Moral and Philosophical Studies (Intermediate 2)

SUMMARY

This Unit is designed to offer progression for candidates who have studied core Religious and Moral Education, the Intermediate 1 Religious, Moral and Philosophical Studies Course or Units, or Standard Grade Religious Studies at General level. Candidates develop the knowledge and skills necessary to understand some of the contemporary relationships between Christian belief and scientific theory. They investigate the nature of Christian revelation and scientific enquiry and two specific questions about human origins. The questions are: What is the origin of the universe? What is the origin of human life?

Candidates will develop knowledge and understanding of the nature of Christian revelation and scientific enquiry and answers to the specific questions above which arise from Christian revelation and scientific enquiry. Important elements of the skills of analysis and evaluation will be developed by studying interpretations of these answers which suggest conflict or compatibility between Christian belief and scientific theory. While investigating these issues candidates have frequent opportunities to reflect upon their own beliefs and those of others. This Unit therefore makes a significant contribution to personal and social development.

Specific questions about human origins are addressed in this Unit. However, the skills and understanding which candidates develop can be applied to a wide range of philosophical and theological issues. This prepares candidates for a more in-depth study of philosophical and/or theological issues at Higher and in alternative Courses in Further Education colleges. It also prepares candidates for entry to any field of employment where the ability to reach reasoned conclusions, after an investigation of two sides of an issue, is required.

OUTCOMES

- 1 Demonstrate knowledge and understanding of the nature of Christian revelation and scientific enquiry.
- 2 Compare and contrast interpretations of answers to important questions about human origins.
- 3 Justify conclusions about interpretations of answers to important questions about human origins

Administrative Information

Superclass: DD

Publication date: October 2008

Source: Scottish Qualifications Authority

Version: 01

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National Unit Specification: general information (cont)

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RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ Standard Grade Religious Studies at Grade 3 or 4
- ◆ Intermediate 1 Religious, Moral and Philosophical Studies Course
- ◆ a pass in an Intermediate 1 Unit
- ◆ a social subject at Intermediate 1

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**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.*

CORE SKILLS

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

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit Specification.

National Unit Specification: statement of standards

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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.

OUTCOME 1

Demonstrate knowledge and understanding of the nature of Christian revelation and scientific enquiry.

Performance Criteria

- (a) Describe the nature and importance of revelation in the Christian tradition.
- (b) Describe the methods of scientific enquiry.
- (c) Describe answers to specific questions about human origins which arise from Christian revelation and scientific enquiry.

OUTCOME 2

Compare and contrast interpretations of answers to important questions about human origins.

Performance Criteria

- (a) Describe interpretations of specific answers which suggest a conflict between Christian belief and scientific theory.
- (b) Describe interpretations of these answers which suggest that Christian belief and scientific theory are compatible.
- (c) Give reasons which explain the differences in these interpretations.

OUTCOME 3

Justify conclusions about interpretations of answers to important questions about human origins.

Performance Criteria

- (a) Explain perceived strengths and weaknesses of interpretations which suggest a conflict between Christian belief and scientific theory.
- (b) Explain perceived strengths and weaknesses of interpretations which suggest that Christian belief and scientific theory are compatible.
- (c) State opinions about the success of these interpretations in addressing the issues raised by scientific theory.
- (d) Give reasons to support the stated opinions.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Details of Content and Context for this Unit are provided in the appendix at the end of this Unit.

To demonstrate satisfactory attainment of all the Outcomes and Performance Criteria candidates must produce written and/or recorded oral evidence in relation to the nature of Christian revelation and scientific enquiry and **one** question about human origins. The evidence should be in the form of a closed-book, supervised test with a time limit of 1 hour. It should be gathered on a single occasion.

The Unit should be assessed by a one-part test which contains an interpretation passage and 6-8 related questions. The questions should sample across the mandatory content. The questions should allow the candidate to generate answers which demonstrate competence in all Outcomes and Performance Criteria. 60% of the marks should be awarded for knowledge and understanding in line with Outcomes 1 and 2. The remaining 40% of the marks available should be awarded for Analysis and Evaluation in line with Outcomes 2 and 3.

If re-assessment is required, it should sample across a different range of mandatory content.

The standard to be applied and the breadth of coverage are illustrated in the National Assessment Bank items available for this Unit. If a centre wishes to design its own assessments for this Unit they should be of a comparable standard.

National Unit Specification: support notes

UNIT Christianity: Belief and Science (Intermediate 2)

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 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is one option from a choice of two Intermediate 2 Units. Candidates choosing this Unit develop the knowledge and skills necessary to understand some contemporary relationships between Christian belief and scientific theory. These relationships are explored by investigating the nature of Christian revelation and scientific enquiry. Candidates then study the answers to two important questions about human origins. One answer to each question arises from revelation in the Christian tradition; one answer to each question arises from scientific enquiry. The relevant questions about human origins are: What is the origin of the Universe? What is the origin of human life?

All content for this Unit and all areas of study are mandatory. Questions in Unit and Course assessment will sample across the mandatory content. It is therefore of vital importance that candidates cover all mandatory aspects of the Unit. A detailed outline of the mandatory areas of study and content can be found in the appendix at the end of this Unit.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

There is **no** choice of areas of study in this Unit. Centres are therefore strongly advised to make sure that they are familiar with all aspects of the Unit Specification and mandatory content when planning the delivery of this Unit.

Summaries of specific Christian teachings, the ideas of specific Christian theologians, philosophers and scientists should be used to illustrate the areas studied. Named individuals or texts are not prescribed. Centres are therefore free to select specific teachings and the ideas of specific writers in light of the resources available and the range of candidates studying the Unit. A list of appropriate writers appears below:

Approaches	Appropriate writers
<i>Scientific Inquiry</i>	A.J. Ayer, Thomas Kuhn, Karl Popper
<i>Biblical Literalism and Creationism</i>	William A Dembski, Duane T Gish, Russell Humphreys, Phillip Johnston, Roy E Peacock
<i>Non-literalist views of Revelation and Compatibility</i>	Teilhard de Chardin, Paul Davies, Sallie McFague, Mary Midgley, Nancey Murphy, Arthur Peacock, John Polkinghorne, Karl Rahner, Keith Ward, A N Whitehead

Candidates are not expected to read specific texts by denominational authorities, named theologians or individual writers. Summaries of the ideas of appropriate writers can be found in a wide range of textbooks on the philosophy of religion. The internet, newspaper/magazine articles, television or radio discussion programmes and public debates will also provide a rich source of information.

National Unit Specification: support notes (cont)

UNIT Christianity: Belief and Science (Intermediate 2)

This Unit is one of two optional Units at Intermediate 2 level. It has good continuity and progression with the Higher *Christianity: Belief and Science* Unit. The alternative optional Unit, *Existence of God*, allows for good continuity and progression from the Intermediate 1 Unit of the same name. The choice of optional Unit is at the discretion of the centre: issues of bi-level teaching and likely progression in future years should be taken into account when deciding which optional Unit is studied. Some guidance on these matters appears below.

All areas of study and the mandatory content for this Unit are also covered in the Higher *Christianity: Belief and Science* Unit. If a centre makes the judgement that an Intermediate 2 candidate shows obvious ability at Higher level, that candidate can be transferred to that level easily. However, it should be noted that there is additional content in the Higher Unit and that analysis and evaluation are more demanding. Additional learning and teaching will be required to ensure the successful completion of the Higher Unit in these circumstances. For candidates who are expected to progress to Higher level in a subsequent year there will be significant opportunities to build on and develop the knowledge and skills they have acquired in this Unit.

In some centres candidates may be expected to progress to the Higher Units or Course in a subsequent year. If this is the case it may be advisable for the centre to choose the alternative Unit at Intermediate 2 in order to maintain candidate motivation and interest in the future. This is a matter for the professional judgement of the teacher or lecturer. It should also be noted that there is no *Christianity: Belief and Science* Unit option at Intermediate 1 level. When a centre plans to teach RMPS Intermediate 1 and 2 Units or Courses in a bi-level setting, it is strongly advised that the alternative optional Unit (*Existence of God*) is chosen.

When candidates study this Unit as part of the Intermediate 2 Course, there are significant opportunities to integrate knowledge and/or skills relevant to the two mandatory Units in the Course.

The skills necessary to understand and investigate religious beliefs are developed in the *World Religion* Unit. These will be of great benefit to all candidates when studying Christian beliefs in this Unit. Additionally the skills of analysis and evaluation are relevant to all three Units in the Course. By applying these skills in a variety of contexts candidates will have many opportunities to develop and refine them.

Guidance on setting the climate for effective learning and teaching, and a variety of classroom activities, can be found in the ‘Approaches to Learning and Teaching’ section of the Course Details.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Throughout this Unit candidates will have the opportunity to develop the skills of Critical Thinking and Written Communication. Throughout the Unit and in assessment candidates critically assess various viewpoints on philosophical and scientific issues and will express their opinions and viewpoints in both Written and Oral Communication.

National Unit Specification: support notes (cont)

UNIT Christianity: Belief and Science (Intermediate 2)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Opportunities for the use of 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 communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Details of the appropriate conditions for assessment of competence in this Unit are outlined in the 'Evidence Requirements for the Unit' in the statement of standards. Centres must make sure that all Unit assessment is carried out under the stated conditions.

The timing of assessment is at the discretion of the centre. However, candidates will develop their knowledge and skills during their study of all mandatory content. This would suggest that appropriate instruments of assessment may best be attempted as an 'end of Unit' test.

An appropriate instrument of assessment is a one-part test which contains an Interpretation passage and 6-8 related questions. The questions should sample across the mandatory content. The questions should allow the candidate to generate answers which demonstrate competence in all Outcomes and Performance Criteria. 60% of the marks should be awarded for knowledge and understanding in line with Outcomes 1 and 2. The remaining 40% of the marks available should be awarded for Analysis and Evaluation in line with Outcomes 2 and 3.

Unit assessment is holistic in nature. When reassessment is required individual candidates should therefore attempt a new instrument of assessment in its entirety to ensure that a different range of mandatory content is sampled.

Appropriate instruments of assessment and marking schemes are contained in the National Assessment Bank.

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).

National Unit Specification: statement of standards (cont) — Appendix

UNIT Christianity: Belief and Science (Intermediate 2)

NB: This appendix is within the statement of standards, ie. the mandatory requirements of the Unit.

This Unit is one option from a choice of two. Candidates who choose to study this Unit develop the knowledge and skills necessary to understand some contemporary relationships between Christian belief and scientific theory. These relationships are explored by investigating the nature of Christian revelation and scientific enquiry. Candidates then study the answers to two important questions about human origins. One answer to each question arises from revelation in Christian scriptures; one answer to each question arises from scientific enquiry. The relevant questions about human origins are: What is the origin of the universe? What is the origin of human life?

The areas of study for this Unit are outlined below and **all candidates choosing this Unit must study all three areas:**

Area 1 — Sources of human understanding

- ◆ Revelation in the Christian tradition is an important source for understanding human origins
- ◆ Scientific enquiry is an important source for understanding human origins

Area 2 — The origin of the universe

- ◆ The universe was created by God
- ◆ The universe originated from the Big Bang

Area 3 — The origin of life

- ◆ Human life is created by God
- ◆ Human life has emerged as a result of the process of evolution

Care must be taken to ensure candidates understand that revelation and scientific enquiry — and the answers to the questions about human origins which they study — are not necessarily competing alternatives. Many Christians may reject answers to questions about human origins which arise from scientific enquiry. However many Christians today see no conflict between their beliefs and scientific theories and many scientists have strongly held Christian beliefs. An individual's rejection, or acceptance, of the relevant answers to each question will depend on the relative importance he/she places on revelation and scientific enquiry as sources of understanding. For this reason, candidates must compare and contrast two interpretations of the relevant answers when investigating each question. One interpretation will suggest that there is a conflict between specific Christian beliefs and scientific theories: one interpretation will suggest that dialogue is possible and that specific Christian beliefs and scientific theories are compatible.

The following range of interpretations must be covered when investigating each question: one interpretation which results in a conflict between Christian belief and widely accepted scientific theory; one interpretation which arises from dialogue and an acceptance of the compatibility between Christian belief and scientific theory. A detailed guide to the relevant interpretations and mandatory content can be found in the tables at the end of this appendix. Candidates will be expected to have studied all interpretations. **Centres must therefore ensure that all aspects of the mandatory content are covered during learning and teaching.**

National Unit Specification: statement of standards (cont) — Appendix

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Summaries of the ideas of specific Christian theologians, philosophers and scientists should be used to illustrate each interpretation but individual writers and texts are not prescribed. Centres are therefore free to select the ideas of appropriate writers in light of the resources available and the range of candidates studying the Unit.

Care must be taken to ensure that the writers chosen illustrate all aspects of the mandatory content. Detailed guidance on appropriate writers appears in the support notes for this Unit.

It is essential for candidates to understand that the different interpretations they study address the issues raised by scientific theory in different ways. Some interpretations place a high value on the literal interpretation of scriptural revelation which leads to a rejection of scientific theory. Such interpretations generally have the advantage of maintaining traditional views of Christian beliefs but can suffer from a lack of credibility among non-believers. Other interpretations accept the insights gained from scientific theory and use these to inform, develop or adapt Christian beliefs about human origins. This approach has the advantage of incorporating widely held scientific theories into a full understanding of human origins. However, this can, at times, lead to a radical rethinking of traditional Christian beliefs. For these reasons, candidates must explain perceived strengths and weaknesses of interpretations as part of evaluation.

Mandatory areas and content

A summary of all mandatory areas of study and content appears below:

Area 1	Approaches to human understanding	Content
Key beliefs	Revelation in the Christian tradition is an important approach to understanding Scientific enquiry is an important approach to human understanding	◆ the nature of revelation in the Christian tradition, including strengths and limitations ◆ scientific method including strengths and limitations
Area 2	The origin of the universe	Content
Viewpoints	The Universe was created by God The universe originated from the Big Bang	◆ the creation of the Universe in Genesis chapter 1: literal and symbolic interpretations ◆ the Big Bang theory and supporting evidence

National Unit Specification: statement of standards (cont) — Appendix

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Area 2 (cont)	The origin of the universe	Content (cont)
<p>Relationship 1: suggests a conflict between Christian belief and scientific theory</p>	<p>The Big Bang theory contradicts a literal understanding of the creation story in Genesis 1 so must be rejected</p> <p>The literal interpretation of the creation story in Genesis 1 contradicts the Big Bang theory so must be rejected</p>	<ul style="list-style-type: none"> ◆ biblical accounts of the creation of the universe in Genesis 1 are factual and should be interpreted literally. ◆ the Big Bang theory is rejected because it contradicts a literal interpretation of Genesis 1. ◆ the existence of the universe is a fact which only requires a scientific explanation ◆ the Big Bang theory removes the need for God as an explanation for the universe
<p>Relationship 2: suggests compatibility between Christian belief and scientific theory</p>	<p>The Big Bang theory is compatible with a symbolic interpretation of the creation story in Genesis 1 so need not be rejected</p>	<ul style="list-style-type: none"> ◆ biblical accounts of the creation of the universe in Genesis 1 are symbolic and need not be interpreted literally ◆ the Big Bang theory need not be rejected as it does not contradict a symbolic interpretation of Genesis 1 ◆ biblical accounts of the creation of the universe are symbolic and therefore compatible with the scientific account of the origin of the universe
Area 3	The origin of Human life	Content
<p>Viewpoints</p>	<p>Human life was created by God</p> <p>Human life has emerged as a result of the process of evolution</p>	<ul style="list-style-type: none"> ◆ the creation of human beings in Genesis chapter 2: literal and symbolic interpretations ◆ the theory of evolution and supporting evidence

National Unit Specification: statement of standards (cont) — Appendix

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Area 3 (cont)	The origin of Human life	Content
<p>Relationship 1: suggests a conflict between Christian belief and scientific theory</p>	<p>The theory of Evolution contradicts the account of the origin of human life in Genesis 2 so must be rejected</p>	<ul style="list-style-type: none"> ◆ biblical accounts of the creation of human life in Genesis 2 are factual and should be interpreted literally ◆ the scientific account of the origin of human life is not compatible with the biblical account in Genesis 2 ◆ the theory of evolution is rejected as it contradicts a literal interpretation of Genesis 2
<p>Relationship 2: suggests compatibility between Christian belief and scientific theory.</p>	<p>The theory of evolution is compatible with a symbolic interpretation of the creation of human life in Genesis 2 so need not be rejected</p>	<ul style="list-style-type: none"> ◆ biblical accounts of the creation of human life in Genesis 2 are symbolic and need not be interpreted literally ◆ biblical accounts of the origins of human life are symbolic and therefore compatible with the scientific account of the origin of human life ◆ the theory of evolution need not be rejected as it does not contradict a symbolic interpretation of Genesis 2