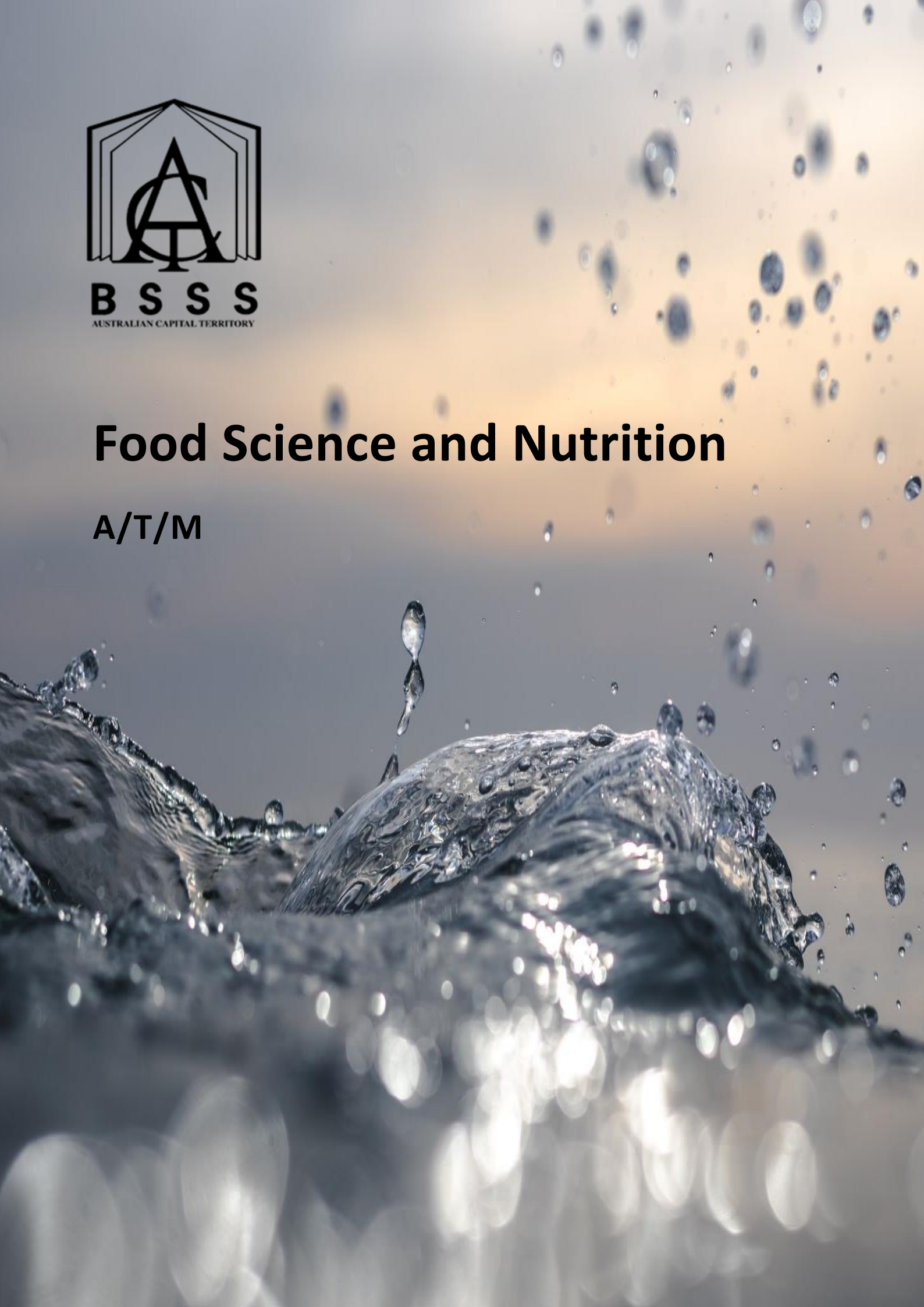
BSSS
AUSTRALIAN CAPITAL TERRITORY

Food Science and Nutrition

A/T/M



Front Cover Art provided by Canberra College student Aidan Giddings

Table of Contents

The ACT Senior Secondary System

The ACT senior secondary system recognises a range of university, vocational or life skills pathways.

The system is based on the premise that teachers are experts in their area: they know their students and community and are thus best placed to develop curriculum and assess students according to their needs and interests. Students have ownership of their learning and are respected as young adults who have a voice.

A defining feature of the system is school-based curriculum and continuous assessment. School-based curriculum provides flexibility for teachers to address students' needs and interests. College teachers have an opportunity to develop courses for implementation across ACT schools. Based on the courses that have been accredited by the BSSS, college teachers are responsible for developing programs of learning. A program of learning is developed by individual colleges to implement the courses and units they are delivering.

Teachers must deliver all content descriptions; however, they do have flexibility to emphasise some content descriptions over others. It is at the discretion of the teacher to select the texts or materials to demonstrate the content descriptions. Teachers can choose to deliver course units in any order and teach additional (not listed) content provided it meets the specific unit goals.

School-based continuous assessment means that students are continually assessed throughout years 11 and 12, with both years contributing equally to senior secondary certification. Teachers and students are positioned to have ownership of senior secondary assessment. The system allows teachers to learn from each other and to refine their judgement and develop expertise.

Senior secondary teachers have the flexibility to assess students in a variety of ways. For example: multimedia presentation, inquiry-based project, test, essay, performance and/or practical demonstration may all have their place. College teachers are responsible for developing assessment instruments with task specific rubrics and providing feedback to students.

The integrity of the ACT Senior Secondary Certificate is upheld by a robust, collaborative and rigorous structured consensus-based peer reviewed moderation process. System moderation involves all year 11 and 12 teachers from public, non-government and international colleges delivering the ACT Senior Secondary Certificate.

Only students who desire a pathway to university are required to sit a general aptitude test, referred to as the ACT Scaling Test (AST), which moderates student scores across courses and colleges. Students are required to use critical and creative thinking skills across a range of disciplines to solve problems. They are also required to interpret a stimulus and write an extended response.

Senior secondary curriculum makes provision for student-centred teaching approaches, integrated and project-based learning inquiry, formative assessment and teacher autonomy. ACT Senior Secondary Curriculum makes provision for diverse learners and students with mild to moderate intellectual disabilities, so that all students can achieve an ACT Senior Secondary Certificate.

The ACT Board of Senior Secondary Studies (BSSS) leads senior secondary education. It is responsible for quality assurance in senior secondary curriculum, assessment and certification. The Board consists of nominees from colleges, professional bodies, universities, industry, parent/carer organisations and unions. The Office of the Board of Senior Secondary Studies (OBSSS) consists of professional and administrative staff who support the Board in achieving its objectives and functions.

ACT Senior Secondary Certificate

Courses of study for the ACT Senior Secondary Certificate:

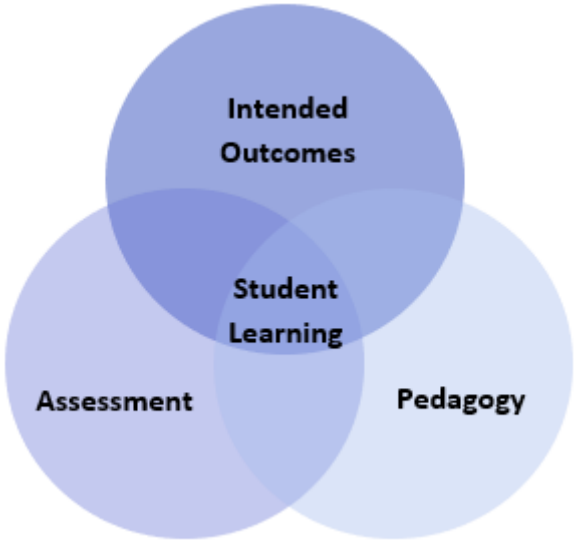
- provide a variety of pathways, to meet different learning needs and encourage students to complete their secondary education
- enable students to develop the essential capabilities for twenty-first century learners
- empower students as active participants in their own learning
- engage students in contemporary issues relevant to their lives
- foster students' intellectual, social and ethical development
- nurture students' wellbeing, and physical and spiritual development
- enable effective and respectful participation in a diverse society.

Each course of study:

- comprises an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum
- is based on a model of learning that integrates intended student outcomes, pedagogy and assessment
- outlines teaching strategies which are grounded in learning principles and encompass quality teaching
- promotes intellectual quality, establishes a rich learning environment and generates relevant connections between learning and life experiences
- provides formal assessment and certification of students' achievements.

Underpinning beliefs

- All students are able to learn.
- Learning is a partnership between students and teachers.
- Teachers are responsible for advancing student learning.



Learning Principles

1. Learning builds on existing knowledge, understandings and skills.
   (Prior knowledge)
2. When learning is organised around major concepts, principles and significant real-world issues, within and across disciplines, it helps students make connections and build knowledge structures.
   (Deep knowledge and connectedness)
3. Learning is facilitated when students actively monitor their own learning and consciously develop ways of organising and applying knowledge within and across contexts.
   (Metacognition)
4. Learners' sense of self and motivation to learn affects learning.
   (Self-concept)
5. Learning needs to take place in a context of high expectations.
   (High expectations)
6. Learners learn in different ways and at different rates.
   (Individual differences)
7. Different cultural environments, including the use of language, shape learners' understandings and the way they learn.
   (Socio-cultural effects)
8. Learning is a social and collaborative function as well as an individual one.
   (Collaborative learning)
9. Learning is strengthened when learning outcomes and criteria for judging learning are made explicit and when students receive frequent feedback on their progress.
   (Explicit expectations and feedback)

General Capabilities

All courses of study for the ACT Senior Secondary Certificate should enable students to develop essential capabilities for twenty-first century learners. These 'capabilities' comprise an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum.

The capabilities include:

- literacy
- numeracy
- information and communication technology (ICT)
- critical and creative thinking
- personal and social
- ethical understanding
- intercultural understanding

Courses of study for the ACT Senior Secondary Certificate should be both relevant to the lives of students and incorporate the contemporary issues they face. Hence, courses address the following three priorities. These priorities are:

- Aboriginal and Torres Strait Islander histories and cultures
- Asia and Australia's engagement with Asia
- Sustainability

Elaboration of these General Capabilities and priorities is available on the ACARA website at www.australiancurriculum.edu.au.

Literacy

Food Science and Nutrition assists in the development of literacy by introducing specific terminology used in Food Science and Nutrition and in engaging in the complex texts of these disciplines. Students develop skills that empower them to be critical consumers able to access, interpret, analyse, challenge and evaluate the ever-expanding and changing knowledge base and influences in the fields of food and nutrition.

Students also learn to comprehend and compose texts related to Food Science and Nutrition. This includes learning to communicate effectively for a variety of purposes to different audiences, express their own ideas and opinions, evaluate the viewpoints of others and express their emotions appropriately in a range of social and physical activity contexts.

Students become literate as they develop the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for participating effectively in society. Literacy involves students in listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts.

Numeracy

Food Science and Nutrition provides students with opportunities to recognise the mathematics that exists in Food Science and Nutrition learning experiences. As they engage with Food Science and Nutrition, students see the importance of numeracy, select relevant numeracy knowledge and skills, and apply these skills in a range of contexts. Students use calculation, estimation and measurement to collect and make sense of information related to experiments in food science principles. Students interpret and analyse Food Science and Nutrition information using mathematical formulae, statistical reasoning, identifying patterns and relationships in data to consider trends, draw conclusions, make predictions and inform Food Science and Nutrition behaviour and practices.

Information and Communication Technology (ICT) Capability

Food Science and Nutrition enhances ICT learning by helping students to effectively and safely access online health information and services to manage their own and others' health and wellbeing. Students use ICT as key tools for communicating, collaborating, creating content, seeking help, accessing information and analysing Food Science and Nutrition applications.

They use a range of ICT to analyse, measure and enhance Food Science and Nutrition practices and to access and critically evaluate Food Science and Nutrition information, products and services. They also use ICT to develop plans for balanced and sustainable diets based on the latest scientific evidence and recommendations from government bodies.

In the Australian Curriculum, students develop ICT capability as they learn to use ICT effectively and appropriately to access, create and communicate information and ideas, solve problems and work collaboratively in all learning areas at school, and in their lives beyond school. The capability involves students in learning to make the most of the digital technologies available to them, adapting to new ways of doing things as technologies evolve and limiting the risks to themselves and others in a digital environment.

Critical and Creative Thinking

Food Science and Nutrition develops students' ability to think logically, critically and creatively in response to a range of Food Science and Nutrition issues, ideas and challenges. Students learn how to critically evaluate evidence related to the learning area and the broad range of associated media messages to creatively generate and explore alternatives and possibilities

In Food Science and Nutrition, students' critical and creative thinking skills are developed through learning experiences that encourage them to pose questions and seek solutions to food and health issues by designing appropriate strategies to promote and advocate personal, social and community health and wellbeing through Food Science and Nutrition. Students also use critical thinking to challenge societal factors that negatively influence their own and others' health and wellbeing.

Personal and Social Capability

Food Science and Nutrition contributes to the development of personal and social capability for all students. Working collaboratively with others in practical and text-based activities develops students' personal and social skills as well as an appreciation of their own strengths and abilities and those of their peers. They develop a range of interpersonal skills such as communication, negotiation, teamwork and leadership, and an appreciation of diverse perspectives.

The curriculum provides opportunities for students to explore their own identities and develop an understanding of factors that influence and shape who they are. They learn how to recognise, understand, validate and respond appropriately to their own emotions, strengths and values.

They develop the knowledge, understanding and skills to set and monitor personal and academic goals, effectively manage their time, and prioritise tasks and responsibilities in order to balance their school, home, work and social commitments.

Ethical Understanding

Students examine ethical principles and codes of practice appropriate Food Science and Nutrition contexts domestically, locally, nationally and globally. As students explore concepts and consequences of issues such as sustainability, food security, deceptive marketing, and responsible consumer behaviours, they develop skills to make ethical decisions and understand the consequences of their actions. They also develop the capacity to apply these skills in everyday situations and Food Science and Nutrition based contexts.

Building ethical understanding throughout all stages of schooling will assist students to engage with the more complex issues that they are likely to encounter in the future, and to navigate a world of competing values, rights, interests and norms. This includes analysing and evaluating the ethics of the actions and motivations of individuals and groups, understanding the ethical dimensions of research and information, debating ethical dilemmas and applying ethics in a range of situations.

Intercultural Understanding

Food Science and Nutrition provides opportunities for students to recognise and respect different ways of thinking about personal, family and food and health issues. They also learn about different individual, group and intergroup participation in food and health practices. Students learn to appreciate that differences in beliefs and perspectives may affect how some people make food and health choices.

Students recognise occasions when tensions between individuals and groups are based on cultural differences and learn to act in ways that maintain individual and group integrity and that respect the rights of all. In doing so, students gain an understanding of how culture shapes personal and social perspectives and interactions. They also gain an understanding of what is valued in terms of food and health within social groups and institutions, and within other cultures in the broader community.

Cross-Curriculum Priorities

Aboriginal and Torres Strait Islander Histories and Cultures

The Aboriginal and Torres Strait Islander histories and cultures priority provides the opportunity for all young Australians to gain a deeper understanding and appreciation of Aboriginal and Torres Strait Islander histories and cultures, deep knowledge traditions and holistic world views. The rich traditions of Australians in relation to the sustainable cultivation and preparation of food is of particular interest to this course. This knowledge and understanding will enrich all learners' ability to participate positively in the ongoing development of Australia through a deepening knowledge and connection with the world's oldest continuous living cultures.

Asia and Australia's Engagement with Asia

The priority of Asia and Australia's engagement with Asia provides opportunities for students to explore the synergy between Asia and Australia in the areas of food practices, food science and nutrition, and through that lens build links and understandings between students of Food Science and Nutrition and their own and Australia's neighbours. An understanding of the engagement between Australia and Asia contributes to the capacity of students to be active and informed citizens.

Sustainability

Students explore how they connect and interact with natural, managed and built environments, and with people in different social groups within their social networks and wider communities. They consider how these connections and interactions within systems play an important role in promoting, supporting and sustaining the wellbeing of individuals, the community and the environment as a whole, now and into the future.

Students develop an understanding of their potential to contribute to sustainable patterns of living. They will develop their world view by exploring concepts of diversity, social justice and consumerism as these relate to Food Science and Nutrition. Students are provided with opportunities to develop a connection in and with environments and to gain an appreciation of the interdependence of the health of people and that of environments.

Food Science and Nutrition

A/T/M

Rationale

In Food Science and Nutrition, students integrate scientific method, knowledge and skills, and apply them to designing and carrying out investigations that explore the links between food, health, and diet-related diseases. In practical scientific investigations, students formulate and test hypotheses by collecting, presenting, analysing, and evaluating data in order to describe trends and clarify theoretical concepts related to food and nutrition. Food Science and Nutrition delivers two units in each of the two domains of study: food science and human nutrition.

Students examine factors that influence food choices and reflect on local, national, Indigenous, and/or global issues related to the study of food and nutrition. They investigate methods of food production and distribution that affect the quantity and quality of food and consider the ways in which these methods and associated technologies have evolved and influence the health of individuals and communities.

The application of science plays an important role in understanding how the properties of food are used to meet the needs of consumers and producers. Food laws and regulations govern the production, supply and distribution of safe foods. Students develop understandings and attitudes that enhance their scientific thinking, problem-solving abilities and decision-making skills in food-related problems.

Factors that influence food availability and selection are examined and current food consumption patterns investigated. Food handling and food safety is addressed with emphasis on ensuring safety and managing the sensory characteristics and functional properties of food to produce a quality product.

Students explore innovations in science and technology and changing consumer demands. New and emerging foods have encouraged the design, development and marketing of a range of products, services and systems. Students investigate food issues and advertising strategies used to promote food products. They examine influences on the supply of food for the world's population and explore issues associated with food security, equity and sustainability.

The role of nutrition in contributing to the health of the individual and the social and economic future of Australia is explored. Production and processing practices are examined, and their impact evaluated. Contemporary food science and nutrition issues are raised, investigated and debated. This knowledge enables students to make informed responses to changes in the production to consumption continuum and exert an influence on future developments in the food industry as educated citizens and in their future careers.

The Food Science and Nutrition course enables students to connect with further education and training, university and employment pathways and enhances employability and career opportunities in areas that include nutrition, health, food and beverage manufacturing, food production, food processing and nutrition technological developments, community services, hospitality and retail.

Goals

This course should develop students:

- sense of wonder and curiosity about nature and an appreciation of how scientific knowledge can be used to address contemporary issues
- understanding of the theories and models used to describe, explain and make predictions about systems, structures and properties to provide a reliable basis for action
- understanding that scientific knowledge has developed over time, is used in a variety of contexts; and influences, and is influenced by, historical, social, economic, cultural and ethical considerations
- understanding that Science is experimental and has developed through independent and collaborative research, and has significant impacts on society and implications for decision making
- ability to design and conduct a variety of field and laboratory investigations involving collection and critical analysis of data, and interpretation of evidence
- ability to critically evaluate scientific concepts, interpretations and claims in order to solve problems and generate informed, considered and ethical conclusions
- ability to communicate scientific understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

Unit Titles

- Properties of Food
- Food Processing and Products
- Food Origins
- Food and Nutrition
- Independent Study

Organisation of Content

Properties of Food

Students investigate the properties of the components of foods. They explore how sensory, physical and chemical properties influence the selection and use of foods. Using scientific methods, students examine the functional properties which determine the performance of food and how these properties determine the way foods are selected, stored, prepared, presented and preserved. Students explore technologies that are applied to create innovative foods and products for consumers.

Food Processing and Products

Students examine the processes of food product development and manufacture in terms of market, technological and environmental considerations. They use a variety of food science processes and principles to design, produce and evaluate food products, services or systems, and develop their expertise with technology and communication. They examine the role and responsibilities of authorities that regulate food in Australia, and the advertising and marketing laws related to food and beverages.

Food Origins

Students learn about the different sources, origins, and use of food commodities. They consider the factors that impact choice when purchasing and consuming food and explore the ways food products are provided to meet the needs and requirements of different demographic groups. Students examine issues that impact sustainable practices in the production of food commodities. They explore how food origins influence food security, food selection models, dietary guidelines and the use of goal setting to achieve nutritional health through research and practical investigations.

Food and Nutrition

Students develop an understanding of the relationship between food and human nutrition for optimal health through a balanced diet. Through theory and practice, students examine food processes that affect nutrition, food quality and supply. They research the effect of nutrients on health and investigate a range of diet-related health conditions that affect individuals and population groups.

Independent Study

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Assessment

The identification of criteria within the achievement standards and assessment task types and weightings provides a common and agreed basis for the collection of evidence of student achievement.

Assessment Criteria (the dimensions of quality that teachers look for in evaluating student work) provide a common and agreed basis for judgement of performance against unit and course goals, within and across colleges. Over a course, teachers must use all these criteria to assess students' performance but are not required to use all criteria on each task. Assessment criteria are to be used holistically on a given task and in determining the unit grade.

Assessment Tasks elicit responses that demonstrate the degree to which students have achieved the goals of a unit based on the assessment criteria. The Common Curriculum Elements (CCE) is a guide to developing assessment tasks that promote a range of thinking skills (see Appendix C). It is highly desirable that assessment tasks engage students in demonstrating higher order thinking.

Rubrics are constructed for individual tasks, informing the assessment criteria relevant for a particular task and can be used to assess a continuum that indicates levels of student performance against each criterion.

Assessment Criteria

Students will be assessed on the degree to which they demonstrate an understanding of:

- concepts, models and application
- contexts
- inquiry skills.

Assessment Task Types

Suggested tasks

Individual tasks may incorporate one or more of the following:

- models
- commentary
- debate
- portfolio/journal
- field work
- investigation
- document/source analysis
- practical report
- role play
- research report
- test/quiz
- seminar/workshop/lecture
- poster
- response to stimulus
- essay
- multimedia presentation
- creative response
- interview
- discussion forum
- rationale/validation
- practical skills

It is recommended that a student conceived investigation be undertaken at least once during a minor and twice during a major. This investigation may either be theoretical or practical, or a combination of both.

Weightings in A/T/M 1.0 and 0.5 Units:

No task to be weighted more than 45% for a standard 1.0 unit.

Additional Assessment Information

- For a standard unit (1.0), students must complete a minimum of three assessment tasks and a maximum of five.
- For a half standard unit (0.5), students must complete a minimum of two and a maximum of three assessment tasks.
- Assessment tasks for a standard (1.0) or half-standard (0.5) unit must be informed by the Achievement Standards.
- Students must experience a variety of task types and different modes of communication to demonstrate the Achievement Standards.
- Task types need to be selected to address all Achievement Standards within the Concepts, Models & Applications, Contexts and Inquiry Skills strands across a standard (1.0) or half-standard (0.5) unit.
- For tasks completed in unsupervised conditions, schools need to have mechanisms to uphold academic integrity, for example: student declaration, plagiarism software, oral defence, interview, or other validation tasks.

Achievement Standards

Years 11 and 12 achievement standards are written for A/T courses. A single achievement standard is written for M courses.

A Year 12 student in any unit is assessed using the Year 12 achievement standards. A Year 11 student in any unit is assessed using the Year 11 achievement standards. Year 12 achievement standards reflect higher expectations of student achievement compared to the Year 11 achievement standards. Years 11 and 12 achievement standards are differentiated by cognitive demand, the number of dimensions and the depth of inquiry.

An achievement standard cannot be used as a rubric for an individual assessment task. Assessment is the responsibility of the college. Student tasks may be assessed using rubrics or marking schemes devised by the college. A teacher may use the achievement standards to inform development of rubrics. The verbs used in achievement standards may be reflected in the rubric. In the context of combined Years 11 and 12 classes, it is best practice to have a distinct rubric for Years 11 and 12. These rubrics should be available for students prior to completion of an assessment task so that success criteria are clear.

BSSS Achievement Standards for Science A Course – Year 11

	*A student who achieves an **A** grade typically*	*A student who achieves a **B** grade typically*	*A student who achieves a **C** grade typically*	*A student who achieves a **D** grade typically*	*A student who achieves an **E** grade typically*
Concepts, Models & Applications	• analyses the fundamental properties and functions of system components, processes and interactions, and how they are affected by factors across a range of temporal and spatial scales • analyses the nature, functions, limitations and applications of theories and models using evidence, in unfamiliar contexts • assesses evidence with reference to models and/or theories, and develops evidence-based conclusions and assesses limitations	• explains the fundamental properties and functions of system components, processes and interactions, and how they are affected by factors across a range of temporal and spatial scales • explains the nature, functions, limitations and applications of theories and models using evidence, in familiar contexts • explains evidence with reference to models and/or theories, and develops evidence-based conclusions and explains limitations	• describes the fundamental properties and functions of system components, processes and interactions, and how they are affected by factors across a range of temporal and spatial scales • describes the nature, functions, limitations and applications of theories and models with supporting evidence • describes evidence with reference to models and/or theories, and develops evidence-based conclusions and describes limitations	• identifies the fundamental properties and functions with some identification of system components and factors that affect processes across a range of temporal and spatial scales • identifies the nature, functions, applications, and some possible limitations of theories and models, with some evidence • identifies evidence, and develops conclusions with some reference to models and/or theories	• identifies the fundamental properties and functions with little or no identification of system components, processes, interactions and contextual scales • identifies the nature, function of theories and models, with an assertion of a few possible limitations • identifies evidence, and asserts conclusions with little or no reference to models and/or theories
Contexts	• analyses how the practice and applications of science meet needs, make decisions; and is influenced by social, economic, technological, and ethical factors	• explains how the practice and applications of science meet needs, make decisions, and is influenced by social, economic, technological, and ethical factors	• describes how the applications of science meet needs, make decisions, and is influenced by social, economic, technological, and ethical factors	• identifies ways in the applications of science meet needs, and is influenced by some factors	• identifies ways in which the application of science has been used in society to meet needs
Inquiry Skills	• designs, conducts and improves safe, ethical and original inquiries individually and collaboratively, that efficiently collect valid and reliable data in response to a complex question • analyses causal and correlational relationships, anomalies, reliability and validity of data and representations, and analyses errors • assesses processes and claims, provides a critique based on evidence, and discusses alternatives • reflects with insight on their own thinking and learning and evaluates planning, time management and use of appropriate strategies to work independently and collaboratively • communicates concisely, effectively and accurately, demonstrating scientific literacy in a range of modes, styles, representations, and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• designs, conducts and improves safe, ethical inquiries individually and collaboratively, that collect valid data in response to a complex question • explains causal and correlational relationships, anomalies, reliability and validity of data and representations, and explains errors • explains processes and claims, provides a critique with reference to evidence, and identifies alternatives • reflects on their own thinking and analyses planning, time management, use of appropriate strategies to work independently and collaboratively • communicates clearly and accurately, demonstrating scientific literacy in a range of modes, styles, representations and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• plans and conducts safe, ethical inquiries individually and collaboratively, that collect valid data in response to a question • describes relationships in data sets, reliability and validity of data and representations, and describes common errors • describes processes and claims, and identifies alternatives with some reference to evidence • reflects on their own thinking and explains planning, time management, use of appropriate strategies to work independently and collaboratively • communicates accurately demonstrating scientific literacy, in a range of modes, styles, representations, and genres for specific purposes, with appropriate evidence and mostly consistent referencing	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data in response to a question with varying success • identifies trends and anomalies in data and representations, with general comments about errors • identifies processes and claims, and identifies the need for improvements with some reference to evidence • reflects on their own thinking with some reference to planning, time management, use of appropriate strategies to work independently and collaboratively • communicates demonstrating some scientific literacy, in a range of modes, representations, and genres with some evidence and inconsistent referencing	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data with little or no connection to a question • identifies trends in data and representations, with little or no reference to anomalies and errors • identifies processes and the need for some improvements, with little or no reference to evidence • reflects on their own thinking with little or no reference to planning, time management, use of appropriate strategies to work independently and collaboratively • communicates demonstrating limited scientific literacy, in a range of modes and representations, with inconsistent and inaccurate referencing

BSSS Achievement Standards for Science T Course – Year 11

	*A student who achieves an **A** grade typically*	*A student who achieves a **B** grade typically*	*A student who achieves a **C** grade typically*	*A student who achieves a **D** grade typically*	*A student who achieves an **E** grade typically*
Concepts, Models & Applications	• evaluates the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales	• analyses the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales	• explains the fundamental properties and functions of system components, processes and interactions and the effects of factors across a range of scales	• describes the fundamental properties and functions, and with some description of system components, processes and interactions, and the effects of factors across a range of scales	• identifies the fundamental properties and functions of system and identifies components, processes and interactions, and the effects of factors across a range of scales
	• evaluates the nature, functions, limitations and applications of theories and models using evidence, in unfamiliar contexts	• analyses the nature, functions, limitations and applications of theories and models using evidence, in familiar contexts	• explains the nature, functions, limitations and applications of theories and models using evidence, in familiar contexts	• describes the nature, functions, limitations and applications of theories and models with supporting evidence	• identifies the nature, functions, applications, and some possible limitations of theories and models, with some evidence
	• analyses evidence with reference to models and/or theories, and develops evidence-based conclusions and evaluates limitations	• assesses evidence with reference to models and/or theories, and develops evidence-based conclusions and discusses limitations	• explains evidence with reference to models and/or theories, and develops evidence-based conclusions and identifies limitations	• describes evidence, and develops conclusions with some reference to models and/or theories	• identifies evidence, and asserts conclusions with little or no reference to models and/or theories
Contexts	• evaluates epistemology, role of peer review, collaboration and technology in developing knowledge	• analyses epistemology, role of peer review and technology in developing knowledge	• explain epistemology, role of peer review and technology in developing knowledge	• describes the role of peer review in developing knowledge	• identifies that scientific knowledge has changed over time
	• evaluates the influence of social, economic, ethical and cultural factors on Science	• analyses the influence of social, economic, ethical and cultural factors on Science	• explains the influence of social, economic, ethical and cultural factors on Science	• describes the influence of social, economic, ethical and cultural factors on Science	• identifies the influence of social, economic, ethical and cultural factors on Science
Inquiry Skills	• designs, conducts and improves safe, ethical and original inquiries individually and collaboratively, that collect valid, reliable data in response to a complex question	• designs, conducts and improves safe, ethical inquiries individually and collaboratively, that collect valid, reliable data in response to a question	• plans and conducts safe, ethical inquiries individually and collaboratively, that collect valid data in response to a familiar question	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data in response to a simple question with varying success	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data with little or no connection to a question
	• analyses causal and correlational relationships, anomalies, reliability and validity of data and representations, and analyses errors	• analyses causal and correlational relationships, anomalies, reliability and validity of data and representations, and discusses errors	• explains causal and correlational relationships, anomalies, reliability and validity of data and representations, and cites common errors	• describes trends, relationships and anomalies in data, identifies anomalies, and some possible sources of error	• identifies trends and relationships in data, with little or no reference to sources of error
	• analyses processes and claims, and provides a critique based on evidence, and analyses alternatives	• assesses processes and claims, and provides a critique with reference to evidence, and analyses alternatives	• explains processes and claims, and identifies alternatives with reference to reliable evidence	• describes processes and claims, and identifies the need for improvements with some reference to evidence	• identifies processes and the need for some improvements, with little or no reference to evidence
	• reflects with insight on own thinking and that of others, and evaluates planning, time management, and use of appropriate work strategies to work independently and collaboratively	• reflects on their own thinking and analyses planning, time management, use of appropriate work strategies to work independently and collaboratively	• reflects on their own thinking and explains planning, time management, use of appropriate work strategies to work independently and collaboratively	• reflects on their own thinking, with reference to planning and the use of appropriate work strategies to work independently and collaboratively	• reflects on their own thinking with little or no reference to planning, time management, and use of work strategies to work independently and collaboratively
	• communicates concisely, effectively and accurately, demonstrating scientific literacy in a range of modes, styles, representations, and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• communicates clearly and accurately, demonstrating scientific literacy in a range of modes, styles, representations and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• communicates accurately demonstrating scientific literacy, in a range of modes, styles, representations, and genres for specific purposes, with appropriate evidence and mostly consistent referencing	• communicates demonstrating some scientific literacy, in a range of modes, representations, and genres with some evidence and inconsistent referencing	• communicates demonstrating limited scientific literacy, in a range of modes and representations, with inconsistent and inaccurate referencing

BSSS Achievement Standards for Science A Course – Year 12

	*A student who achieves an **A** grade typically*	*A student who achieves a **B** grade typically*	*A student who achieves a **C** grade typically*	*A student who achieves a **D** grade typically*	*A student who achieves an **E** grade typically*
Concepts, Models & Applications	• analyses the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales • analyse the nature, functions, limitations and applications of theories and models using evidence, in unfamiliar contexts • assesses evidence with reference to models and/or theories, and develops evidence-based conclusions and evaluates limitations	• explains the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales • explains the nature, functions, limitations and applications of theories and models using evidence, in familiar contexts • explains evidence with reference to models and/or theories, and develops evidence-based conclusions and discusses limitations	• describes the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales • describes the nature, functions, limitations and applications of theories and models using evidence, in familiar contexts • describes evidence with reference to models and/or theories, and develops evidence-based conclusions and identifies limitations	• describes the fundamental properties and functions of system components, processes and interactions, and the effects of one or more factors • describes the nature, functions, limitations and applications of theories and models with supporting evidence • describes evidence, and develops conclusions with some reference to models and/or theories	• identifies the fundamental properties and functions of system components, processes and interactions, and the effects of factors • identifies the nature, functions, applications, and some limitations of theories and models with some evidence • identifies evidence, and asserts conclusions with little or no reference to models and/or theories
Contexts	• analyses epistemology, role of peer review, collaboration and technology in developing knowledge • analyses the influence of social, economic, ethical and cultural factors on Science	• explains epistemology, role of peer review and technology in developing knowledge • explains the influence of social, economic, ethical and cultural factors on Science	• describes epistemology, role of peer review and technology in developing knowledge • describes the influence of social, economic, ethical and cultural factors on Science	• describes role of peer review and technology in developing knowledge • describes the influence of social, economic, ethical and cultural factors on Science	• identifies that scientific knowledge has changed over time • identifies the influence of social, economic, ethical and cultural factors on Science
Inquiry Skills	• designs, conducts and improves safe, ethical and original inquiries individually and collaboratively, that collect valid, reliable data in response to a complex question • analyses causal and correlational relationships, anomalies, reliability and validity of data and representations, and analyses errors • analyses processes and claims, and provides a critique based on evidence, and analyses alternatives • reflects with insight on own thinking and that of others and, evaluates planning, time management and use of appropriate independent and collaborative work strategies • communicates concisely, effectively and accurately, demonstrating scientific literacy in a range of modes, styles, representations, and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• designs, conducts and improves safe, ethical inquiries individually and collaboratively, that collect valid, reliable data in response to a question • analyses causal and correlational relationships, anomalies, reliability and validity of data and representations, and discusses errors • explains processes and claims, and provides a critique with reference to evidence, and proposes alternatives • reflects on their own thinking and analyses planning, time management, and use of appropriate independent and collaborative work strategies • communicates clearly and accurately, demonstrating scientific literacy in a range of modes, styles, representations and genres for specific audiences and purposes, with appropriate evidence and accurate referencing	• plans and conducts safe, ethical inquiries individually and collaboratively, that collect valid data in response to a familiar question • describes causal and correlational relationships, anomalies, reliability and validity of data and representations, and cites common errors • describes processes and claims, and identifies alternatives with reference to reliable evidence • reflects on their own thinking and explains planning, time management, and use of appropriate independent and collaborative work strategies • communicates accurately demonstrating scientific literacy, in a range of modes, styles, representations, and genres for specific purposes, with appropriate evidence and mostly consistent referencing	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data in response to a simple question with varying success • describes trends, relationships and anomalies in data, identifies anomalies, and some possible sources of error • describes processes and claims, and identifies the need for improvements with some reference to evidence • reflects on their own thinking, with reference to planning and the use of appropriate independent and collaborative work strategies • communicates demonstrating some scientific literacy, in a range of modes, representations, and genres with some evidence and inconsistent referencing	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data with little or no connection to a question • identifies trends and relationships in data, with little or no reference to sources of error • identifies processes and the need for some improvements, with little or no reference to evidence • reflects on their own thinking with little or no reference to planning, time management, and use of appropriate independent and collaborative work strategies • communicates demonstrating limited scientific literacy, in a range of modes and representations, with inconsistent and inaccurate referencing

BSSS Achievement Standards for Science T Course – Year 12

	*A student who achieves an **A** grade typically*	*A student who achieves a **B** grade typically*	*A student who achieves a **C** grade typically*	*A student who achieves a **D** grade typically*	*A student who achieves an **E** grade typically*
Concepts, Models & Applications	• evaluates the properties and functions of system components, processes and interactions, and the interplay and effects of factors across a range of scales	• analyses the properties and functions of system components, processes and interactions, and the interplay and effects of factors across a range of scales	• explains the fundamental properties and functions of system components, processes and interactions, and the effects of factors across a range of scales	• describes the fundamental properties and functions of system components, processes and interactions, and the effects of one or more factors	• identifies the fundamental properties and functions of system components, processes and interactions, and some affective factors
	• evaluates applications, limitations, and predictions of theories and models to explain systems and create solutions, with evidence, in unfamiliar contexts	• analyses applications, limitations, and predictions of theories and models to explain systems and create plausible solutions, with evidence in familiar contexts	• explains applications, limitations, and predictions of theories and models to explain systems and create plausible solutions in familiar contexts	• describes the nature, functions, limitations and applications of theories and models to create solutions to problems with supporting evidence	• identifies the nature, functions, limitations and applications of theories and models, and suggest solutions to problems with supporting evidence,
	• evaluates evidence with reference to analysis of models and/or theories, and develops evidence-based conclusions and evaluates limitations	• analyses evidence with reference to models and/or theories, and develops evidence-based conclusions and discusses limitations	• explains evidence with reference to models and/or theories, and develops evidence-based conclusions and identifies limitations	• describes evidence, and develops conclusions with some reference to models and/or theories	• identifies evidence, and asserts conclusions with little or no reference to models and/or theories
Contexts	• evaluates epistemology, role of peer review, collaboration, and technology in developing knowledge	• analyses epistemology, role of peer review and technology in developing knowledge	• explains epistemology, role of peer review and technology in developing knowledge	• describes role of peer review and technology in developing knowledge	• identifies that scientific knowledge has changed over time
	• evaluates the influence of social, economic, ethical and cultural factors on Science	• analyses the influence of social, economic, ethical and cultural factors on Science	• explains the influence of social, economic, ethical and cultural factors on Science	• describes the influence of social, economic, ethical and cultural factors on Science	• identifies the influence of social, economic, ethical and cultural factors on Science
Inquiry Skills	• designs, conducts and improves safe, ethical and original inquiries individually and collaboratively, that collect valid, reliable data in response to a complex question	• designs, conducts and improves safe, ethical inquiries individually and collaboratively, that collect valid, reliable data in response to a question	• plans and conducts safe, ethical inquiries individually and collaboratively, that collect valid data in response to a familiar question	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data in response to a simple question with varying success	• follows a procedure to conduct safe, ethical inquiries individually and collaboratively, to collect data with little or no connection to a question
	• evaluates cause and correlation, anomalies, reliability and validity of data and representations, and evaluates errors	• analyses cause and correlation, anomalies, reliability and validity of data and representations, and analyses errors	• explains causal and correlational relationships, anomalies, reliability and validity of data and representations, and discusses common errors	• describes trends, relationships and anomalies in data, identifies anomalies, and cites sources of error	• identifies trends and relationships in data with reference to sources of error
	• evaluates processes and claims, and provides a critique based on evidence, and evaluates alternatives	• analyses processes and claims, and provides a critique with reference to evidence, and analyses alternatives	• explains processes and claims, and identifies alternatives with reference to reliable evidence	• describes processes and claims, and identifies the need for improvements with some reference to evidence	• identifies processes and the need for some improvements, with little or no reference to evidence
	• reflects with insight on own thinking and that of others, evaluates planning, time management, and use of appropriate independent and collaborative work strategies	• reflects on their own thinking and analyses planning, time management, and use of appropriate independent and collaborative work strategies	• reflects on their own thinking and explains planning, time management, and use of appropriate independent and collaborative work strategies	• reflects on their own thinking, with reference to planning and the use of appropriate independent and collaborative work strategies	• reflects on their own thinking with little or no reference to planning, time management, and use of appropriate independent and collaborative work strategies
	• communicates concisely, effectively and accurately, with scientific literacy in a range of modes, representations, and genres for specific audiences and purposes, and accurate referencing	• communicates clearly and accurately, with scientific literacy in a range of modes, representations and genres for specific audiences and purposes, and accurate referencing	• communicates accurately demonstrating scientific literacy, in a range of modes, representations, and genres for specific purposes, and mostly consistent referencing	• communicates demonstrating some scientific literacy, in a range of modes, representations, and genres with some evidence and inconsistent referencing	• communicates demonstrating limited scientific literacy, in a range of modes and representations, with inconsistent and inaccurate referencing

Achievement Standards for Science M Course – Years 11 and 12

	*A student who achieves an **A** grade typically*	*A student who achieves a **B** grade typically*	*A student who achieves a **C** grade typically*	*A student who achieves a **D** grade typically*	*A student who achieves an **E** grade typically*
Concepts, Models & Applications	• describes the properties and functions of system components and processes with independence • describes system components and processes with some reference to how they are affected by factors with independence	• describes the properties and functions of system components, processes and interactions with assistance • describes system components, processes and interactions with some reference to how they are affected by factors with assistance	• identifies the properties and functions of system components, processes and interactions with independence • identifies system components, processes and interactions with independence	• identifies the properties and functions of system components, processes and interactions with assistance • identifies system components, processes and interactions with assistance	• identifies the properties and functions of system components, processes and interactions with direct instruction • identifies system components, processes and interactions with direct instruction
Contexts	• describes the impact of science on an aspect of society with independence	• describes the impact of science on an aspect of society with some independence	• identifies the impact of science on an aspect of society with independence	• identifies the impact of science on an aspect of society with assistance	• identifies the impact of science on an aspect of society with direct instruction
Inquiry Skills	• plans and conducts investigations in response to a question or problem with independence • draws evidence-based conclusions from investigations with independence • reflects on own thinking and learning in science with independence • communicates findings effectively with independence	• plans and conducts investigations in response to a question or problem with some independence • draws evidence-based conclusions from investigations with some independence • reflects on own thinking and learning in science with some independence • communicates findings effectively with some independence	• plans and conducts investigations in response to a question or problem with assistance • draws evidence-based conclusions from investigations with assistance • reflects on own thinking and learning in science with assistance • communicates findings with assistance	• plans and conducts investigations in response to a question or problem with repeated cueing • draws evidence-based conclusions from investigations with repeated cueing • reflects on own thinking and learning in science with repeated cueing • communicates findings with repeated cueing	• follows a procedure to conduct investigations to collect data with direct instruction • draws evidence-based conclusions from investigations with direct instruction • reflects on own thinking and learning in science with direct instruction • communicates findings with direct instruction

Properties of Food — Value: 1.0

Properties of Food a — **Value 0.5**

Properties of Food b — **Value 0.5**

Unit Description

Students investigate the properties of the components of foods. They explore how sensory, physical and chemical properties influence the selection and use of foods. Using scientific methods, students examine the functional properties which determine the performance of food and how these properties determine the way foods are selected, stored, prepared, presented and preserved. Students explore technologies that are applied to create innovative foods and products for consumers.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
• analyse the sensory, physical and chemical properties and components of food	• evaluate the sensory, physical and chemical properties and components of food	• describe the properties and components of food
• investigate the applications of food properties and processes to assess, design and develop food products	• investigate the applications of food properties and processes to evaluate, design and develop food products	• consider food properties and processes to make and reflect on food products
• analyse the risks and assess the implications of food processing and preservation techniques	• evaluate the risks and evaluate the implications of food processing and preservation techniques	• understand the risks of food processing and preservation techniques

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Concepts, Models and Applications		
• analyse the sensory, physical and chemical properties and components of food for the selection and development of food products and processes across a range of scales in time, temperature, or quantity, for example for example, measuring energy content	• evaluate the sensory, physical and chemical properties and components of food for the selection and development of food products and processes across a range of scales in time, temperature, or quantity, for example, measuring energy content	• describe the properties and components of food for the development of food products and processes

A Course	T Course	M Course
• explain applications of food properties, including additives, to design, create and assess innovative food products and processes	• evaluate applications of food properties, including additives, to design, create and critique innovative food products and processes	• apply properties of food to make food products and processes
• analyse the implications of a range of food processing, preservation and packaging processes for taste, nutrition, availability, food safety and financial viability, for example small scale and mass production	• evaluate the implications of a range of food processing, preservation and packaging processes for taste, nutrition, availability, food safety and financial viability, for example small scale and mass production	
• analyse claims about the properties and components of food, using scientific evidence, theories or models to assess limitations and implications, for example genetically modified food	• evaluate claims about the properties and components of food, using scientific evidence, theories or models to evaluate limitations and implications, for example genetically modified food	• discuss claims about the properties of food, using evidence
Contexts		
• interpret a range of texts, and explain processes, claims and conclusions by considering the quality of available evidence, for example peer review versus popular claims	• interpret a range of scientific and media texts, and evaluate processes, claims and conclusions by considering the quality of available evidence, for example peer review versus popular claims	• identify sources of trustworthy information on food science
• analyse the influence of social, economic, geographic, cultural, environmental or ethical considerations on the properties of food, for example biotechnology,	• evaluate the influence of social, economic, geographic, cultural, environmental and ethical considerations on the properties of food, for example biotechnology,	• identify influences on the properties of food, for example culture
• describe current and emerging technologies and discuss plausible applications for this technology	• evaluate current and emerging technologies and plausible or innovative applications for this technology	• identify current and emerging technologies in food science

A Course	T Course	M Course
Inquiry Skills		
• data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• evaluate data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• draw evidenced based conclusions from data
• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• plan and conduct safe investigations to collect reliable data
• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate for specific audiences
• apply strategies to work both independently and collaboratively to develop solutions	• apply strategies to work both independently and collaboratively to develop solutions	• use strategies to work with others and individually
• reflect on own thinking and assess planning, time management, use of appropriate work strategies	• reflect on own thinking and evaluate planning, time management, use of appropriate work strategies	• reflects on own learning and activities, and use of appropriate work strategies

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasise some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 10-12.

Food Processing and Products — Value: 1.0

Food Processing and Products a — **Value 0.5**

Food Processing and Products b — **Value 0.5**

Unit Description

Students examine the processes of food product development and manufacture in terms of market, technological and environmental considerations. They use a variety of food science processes and principles to design, produce and evaluate food products, services or systems, and develop their expertise with technology and communication. They examine the role and responsibilities of authorities that regulate food in Australia, and the advertising and marketing laws related to food and beverages.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
• analyse the processes of food product development and manufacture in terms of market, technological and environmental considerations	• evaluate the processes of food product development and manufacture in terms of market, technological and environmental considerations	• describe processes of food product development and manufacture
• design, produce and assess food products, services or processing systems using food science principles and technology	• design, produce and evaluate food products, services or processing systems using food science principles and technology	• plan, make and reflect on food products or services
• analyse the role and responsibilities of authorities that regulate food in Australia	• evaluate the role and responsibilities of authorities that regulate food in Australia	• describe the role and responsibilities of authorities that regulate food in Australia

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Concepts, Models and Applications		
• analyse the food science principles used, and apply in product development and manufacture, for example gelatinisation, crystallisation, denaturation	• evaluate models and theories, including food science principles, and apply in product development and manufacture, for example gelatinisation, crystallisation, denaturation	• describe food science principles in product development

A Course	T Course	M Course
• analyse the processes of food product development and manufacture in terms of the quality of product, design process, market, scale, technological, ethical or environmental considerations, for example farmers market, carbon footprint, global logistics	• evaluate the processes of food product development and manufacture in terms of the quality of product, design process, market, scale, technological, ethical and environmental considerations, for example farmers market, carbon footprint, global logistics	
• analyse and apply technology and communication skills to design food products, services or processing systems, for example waste processing, green banana flour	• evaluate and apply technology and communication skills to design food products, services or processing systems, for example waste processing, green banana flour	• plan and make food products, services or processing systems
• analyse claims about food products, or systems, including advertising, with reference to evidence from a range of sources, considering the uses of scientific knowledge in a range of contexts, for example labelling or marketing claims	• evaluate claims about food products or systems, including advertising, with reference to evidence from a range of sources, considering the uses of scientific knowledge in a range of contexts, for example labelling or marketing claims	• draw evidence-based conclusions with regard to claims made about food products or systems
Contexts		
• analyse how scientific knowledge is influenced by social, economic, business, cultural or ethical considerations, for example animal welfare, carbon footprint, health warnings	• evaluate how scientific knowledge is influenced by social, economic, business, cultural and ethical considerations, for example animal welfare, carbon footprint, health warnings	• describe how science is affected by factors, for example animal welfare
• analyse regulation of food in Australia, for example products, development, manufacture, advertising and marketing	• evaluate regulation of food in Australia, for example products, development, manufacture, advertising and marketing	• describe the role of food regulation in Australia
• assess current and emerging technologies and plausible applications for this technology, for example manufactured meat, 3D printed food, entomophagy	• evaluate current and emerging technologies and plausible applications for this technology, for example manufactured meat, 3D printed food, entomophagy	• identify current and emerging technologies in food science

A Course	T Course	M Course
Inquiry Skills		
• analyse data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• evaluate data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• draw evidenced based conclusions from data
• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• plan and conduct safe investigations to collect reliable data
• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate for specific audiences
• apply strategies to work both independently and collaboratively to develop solutions	• apply strategies to work both independently and collaboratively to develop solutions	• use strategies to work with others and individually
• reflect on own thinking and assess planning, time management, use of appropriate work strategies	• reflect on own thinking and evaluate planning, time management, use of appropriate work strategies	• reflects on own learning and activities, and use of appropriate work strategies

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasise some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 10-12.

Food Origins — Value: 1.0

Food Origins a — **Value 0.5**

Food Origins b — **Value 0.5**

Unit Description

Students learn about the different sources, origins, and uses of food commodities. They explore how food origins influence food security, food selection models, dietary guidelines and the use of goal setting to achieve nutritional health through research and practical investigations. Students consider the factors that impact choice when purchasing and consuming food and explore the ways food products are provided to meet the needs and requirements of different demographic groups. Students examine issues that impact sustainable practices in the production of food commodities.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
• analyse the different sources, origins, use and sustainability of food commodities • analyse the social, cultural, ethical, nutritional, environmental and/or economic factors that impact choice when producing, purchasing and consuming food • analyse how food origins influence food security, food selection models, dietary guidelines and the use of goal setting to achieve nutritional health	• evaluate the different sources, origins, use and sustainability of food commodities • evaluate the social, cultural, ethical, nutritional, environmental and economic factors that impact choice when producing, purchasing and consuming food • evaluate how food origins influence food security, food selection models, dietary guidelines and the use of goal setting to achieve nutritional health	• identify the different sources, origins, use and sustainability of food commodities • describe factors that impact choice when producing, purchasing and consuming food • explain why different people choose different foods and how that affects their health

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Concepts, Models and Applications		
• analyse the use and sustainability of food commodities, including reasons for development of food commodities, and Aboriginal and Torres Strait Islander food products, for example national and global food consumption patterns, Ozharvest	• evaluate use and sustainability of food commodities, including reasons for development of food commodities, and Aboriginal and Torres Strait Islander food products, for example national and global food consumption patterns, Ozharvest	• describe the different sources, origins, use and sustainability of food commodities

A Course	T Course	M Course
• analyse reasons for, and responses to, local, national and/or global food security, for example environmental change and disasters, biotechnology, UN goals	• evaluate reasons for, and responses to, local, national and global food security, for example environmental change and disasters, biotechnology, UN goals	• describe factors that impact choice when producing, purchasing and consuming food
• analyse sustainable practices in the production of food commodities, for example regional and global environmental, ethical and economic factors	• evaluate sustainable practices, in the production of food commodities, for example regional and global environmental, ethical and economic factors	
• analyse how food origins influence food selection models, dietary guidelines and/or the use of goal setting to achieve nutritional health	• evaluate how food origins influence food selection models, dietary guidelines and the use of goal setting to achieve nutritional health	• explain why different people choose different foods and how that affects their health
Contexts		
• analyse the social, cultural, nutritional, environmental, political, scientific, ethical and/or economic factors that impact choice when producing, purchasing and consuming food, for example changing science and politics on irrigation schemes, accounting for changes in dietary guidelines and models over time, corporate influence, Indigenous agriculture	• evaluate the social, cultural, nutritional, environmental, political, scientific, ethical and economic factors that impact choice when producing, purchasing and consuming food, for example changing science and politics on irrigation schemes, accounting for changes in dietary guidelines and models over time, corporate influence, Indigenous agriculture	• explain factors that influence food choices for different people
• analyse how scientific knowledge can be used to develop and evaluate projected economic, social and/or environmental impacts and to design action for sustainability, for example traceability, water efficient irrigation	• evaluate how scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability, for example traceability, water efficient irrigation	• describe factors that affect the sustainability of food
• assess current and emerging technologies and plausible applications for this technology, for example securing heritage varieties, GM technology, urban farming	• evaluate current and emerging technologies and plausible applications for this technology, for example securing heritage varieties, GM technology, urban farming	• identify the purposes and effects of new food technologies

A Course	T Course	M Course
Inquiry Skills		
• analyse data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• evaluate data for validity, accurate representation, cause and correlation, anomalies, reliability , and error	• draw evidenced based conclusions from data
• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• plan and conduct safe investigations to collect reliable data
• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate for specific audiences
• apply strategies to work both independently and collaboratively to develop solutions	• apply strategies to work both independently and collaboratively to develop solutions	• use strategies to work with others and individually
• reflect on own thinking and assess planning, time management, use of appropriate work strategies	• reflect on own thinking and evaluate planning, time management, use of appropriate work strategies	• reflects on own learning and activities, and use of appropriate work strategies

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasise some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 10-12.

Food and Nutrition — Value: 1.0

Food and Nutrition a — **Value 0.5**

Food and Nutrition b — **Value 0.5**

Unit Description

Students develop an understanding of the relationship between food and human nutrition for optimal health through a balanced diet. Through theory and practice, students examine food processes that affect nutrition, food quality and supply. They research the effect of nutrients on health and investigate a range of diet-related health conditions that affect individuals and population groups.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
• analyse the role, and interaction of, nutrients in the human diet	• evaluate the role, and interaction of, nutrients in the human diet	• describe the role of nutrients in the human diet
• analyse the nutritional requirements of a balanced diet for individuals and groups, including a range of dietary influences, practices and diet-related health conditions	• evaluate the nutritional requirements of a balanced diet for individuals and groups, including a range of dietary influences, practices and diet-related health conditions	• describe nutritional requirements for a balanced diet
• analyse food processes that affect nutrition, food quality and supply	• evaluate food processes that affect nutrition, food quality and supply	• describe food processes that affect nutrition, food quality and supply

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Concepts, Models and Applications		
• analyse the role of macro and micronutrients in growth, development, health and well-being throughout the human life cycle	• evaluate the role of macro and micronutrients in growth, development, health and well-being throughout the human life cycle	• describe the role of nutrients throughout the human life cycle
• analyse information about nutritional requirements and food choices and apply to individuals and groups, for example dietary practices, religions, life stages	• evaluate information about nutritional requirements and food choices and apply to individuals and groups, for example dietary practices, religions, life stages	• describe a balanced diet using reliable sources of information

A Course	T Course	M Course
• analyse a range of diet-related health conditions that affect individuals and groups using models and theories that have been developed based on evidence from a range of sources	• evaluate a range of diet-related health conditions that affect individuals and groups using models and theories that have been developed based on evidence from a range of sources, for example celiac, diabetes, heart disease	• describe diet related health problems
• analyse food processes that affect nutrition, food quality and supply, for example ripening process, exposure to oxygen, loss of nutrients through exposure to heat or leaching	• evaluate food processes that affect nutrition, food quality and supply, for example ripening process, loss of nutrients through exposure to heat or leaching	• identify food process that affect nutritional quality of foods
Contexts		
• analyse a range of scientific and media texts, and assess processes, claims and conclusions by considering the quality of available evidence	• interpret a range of scientific and media texts, and evaluate processes, claims and conclusions by considering the quality of available evidence	• identify reliable sources of information about food science and nutrition
• analyse how scientific knowledge about human nutrition and diet is influenced by social, economic, business, cultural and/or ethical considerations	• evaluate how scientific knowledge about human nutrition and diet is influenced by social, economic, business, cultural and ethical considerations	
• assess current and emerging technologies and plausible applications for this technology, for example functional food and nutraceuticals, personalised nutrition, nanostructures	• evaluate current and emerging technologies and plausible applications for this technology, for example functional food and nutraceuticals, personalised nutrition, nanostructures	• describe technologies used in food science for nutritional health
Inquiry Skills		
• analyse data for cause and correlation, anomalies, reliability, validity of data and representations, and error, for example analyse studies of the effects of GM food consumption, ethical limitations on experimenting on people, analyse the equivalency of animal studies	• evaluate data for cause and correlation, anomalies, reliability, validity of data and representations, and e error, for example, analyse studies of the effects of GM food consumption, ethical limitations on experimenting on people, analyse the equivalency of animal studies	• draw evidenced based conclusions from data

A Course	T Course	M Course
• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• plan and conduct safe investigations to collect reliable data
• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate for specific audiences
• apply strategies to work both independently and collaboratively to develop solutions	• apply strategies to work both independently and collaboratively to develop solutions	• use strategies to work with others and individually
• reflect on own thinking and assess planning, time management, use of appropriate work strategies	• reflect on own thinking and evaluate planning, time management, use of appropriate work strategies	• reflects on own learning and activities, and use of appropriate work strategies

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasise some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 10-12.

Independent Study — Value: 1.0

Independent Study a — **Value 0.5**

Independent Study b — **Value 0.5**

Prerequisites

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Unit Description

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
• analyse the chosen topic of study from food science and/or human nutrition and the interplay and effects of factors across a range of scales	• evaluate the chosen topic of study from food science and/or human nutrition and the interplay and effects of factors across a range of scales	• describe the chosen topic of study from food science and or human nutrition
• analyse the scientific underpinnings of the chosen topic of study	• evaluate the scientific underpinnings of the chosen topic of study	• use reliable sources of information on food science and or human nutrition
• assess the applications and implications of the chosen topic of study in food science and/or human nutrition to meet a need or opportunity	• evaluate the applications and implications of the chosen topic of study in food science and/or human nutrition to meet a need or opportunity	• describe applications or implications of the chosen topic of study in food science and/or human nutrition to meet a need or opportunity

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Concepts, Models and Applications		
• analyse the properties, functions or applications of selected aspect of food science and/or nutrition and the interplay and effects of factors across a range of scales	• evaluate the properties, functions or applications of selected aspect of food science and/or nutrition and the interplay and effects of factors across a range of scales	• describe the properties, and functions, or the components and processes of the topic of study from food science and/ or nutrition
• assess the applications and implications of the chosen topic of study in food science and/or human nutrition to create a need or opportunity • assess models and theories that have been developed based on evidence from a range of sources, and the uses and limitations of scientific knowledge in a range of contexts	• evaluate the applications and implications of the chosen topic of study in food science and/or human nutrition to create a solution for a need or opportunity • evaluate models and theories that have been developed based on evidence from a range of sources, and the uses and limitations of scientific knowledge in a range of contexts	• describe applications or implications of the chosen topic of study in food science and/or human nutrition to meet a need or opportunity
Contexts		
• analyse a range of scientific and media texts, and assess processes, claims and conclusions by considering the quality of available evidence • analyse how scientific knowledge is influenced by social, economic, business, cultural and ethical considerations • assess current and emerging technologies and plausible applications for this technology	• evaluate a range of scientific and media texts, and evaluate processes, claims and conclusions by considering the quality of available evidence • evaluate how scientific knowledge is influenced by social, economic, business, cultural and ethical considerations • evaluate current and emerging technologies and plausible applications for this technology	• use reliable sources of information on food science and or human nutrition
Inquiry Skills		
• analyse data for cause and correlation, anomalies, reliability, validity of data and representations, and error	• evaluate data for cause and correlation, anomalies, reliability, validity of data and representations, and error	• draw evidenced based conclusions from data

A Course	T Course	M Course
• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• design and conduct ethical and safe investigations in response to complex questions that collect valid, reliable data	• plan and conduct safe investigations to collect reliable data
• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate demonstrating scientific literacy to specific audiences and purposes using appropriate metalanguage, genres and modes	• communicate for specific audiences
• apply strategies to work both independently and collaboratively to develop solutions	• apply strategies to work both independently and collaboratively to develop solutions	• use strategies to work with others and individually
• reflect on own thinking and assess planning, time management, use of appropriate work strategies	• reflect on own thinking and evaluate planning, time management, use of appropriate work strategies	• reflects on own learning and activities, and use of appropriate work strategies

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasise some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 10-12.

Appendix A – Implementation Guidelines

Available course patterns

A standard 1.0 value unit is delivered over at least 55 hours. To be awarded a course, students must complete at least the minimum units over the whole minor or major. course.

Course	Number of standard units to meet course requirements
Minor	Minimum of 2 units
Major	Minimum of 3.5 units

Units in this course can be delivered in any order.

Prerequisites for the course or units within the course

Students must have studied at least three standard 1.0 units from this course in order to access the Independent Study unit. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Arrangements for students continuing study in this course

Students who studied the previous course may undertake any units in this course provided there is no duplication of content.

Duplication of Content Rules

Students cannot be given credit towards the requirements for a Senior Secondary Certificate for a unit that significantly duplicates content in a unit studied in another course. The responsibility for preventing undesirable overlap of content studied by a student, rests with the principal and the teacher delivering the course. Students will only be given credit for covering the content once.

Guidelines for Delivery

Program of Learning

A program of learning is what a school provides to implement the course for a subject. This meets the requirements for context, scope and sequence set out in the Board endorsed course. Students follow programs of learning in a college as part of their senior secondary studies. The detail, design and layout of a program of learning are a college decision.

The program of learning must be documented to show the planned learning activities and experiences that meet the needs of particular groups of students, taking into account their interests, prior knowledge, abilities and backgrounds. The program of learning is a record of the learning experiences that enable students to achieve the knowledge, understanding and skills of the content descriptions. There is no requirement to submit a program of learning to the OBSSS for approval. The Principal will need to sign off at the end of Year 12 that courses have been delivered as accredited.

Content Descriptions

Are all content descriptions of equal importance? No. It depends on the focus of study. Teachers can customise their program of learning to meet their own students' needs, adding additional content descriptions if desired or emphasising some over others. A teacher must balance student needs with their responsibility to teach all content descriptions. It is mandatory that teachers address all content descriptions and that students engage with all content descriptions.

Half standard 0.5 units

Half standard units appear on the course adoption form but are not explicitly documented in courses. It is at the discretion of the college principal to split a standard 1.0 unit into two half standard 0.5 units. Colleges are required to adopt the half standard 0.5 units. However, colleges are not required to submit explicit documentation outlining their half standard 0.5 units to the BSSS. Colleges must assess students using the half standard 0.5 assessment task weightings outlined in the framework. It is the responsibility of the college principal to ensure that all content is delivered in units approved by the Board.

Moderation

Moderation is a system designed and implemented to:

- provide comparability in the system of school-based assessment
- form the basis for valid and reliable assessment in senior secondary schools
- involve the ACT Board of Senior Secondary Studies and colleges in cooperation and partnership
- maintain the quality of school-based assessment and the credibility, validity and acceptability of Board certificates.

Moderation commences within individual colleges. Teachers develop assessment programs and instruments, apply assessment criteria, and allocate Unit Grades, according to the relevant Framework. Teachers within course teaching groups conduct consensus discussions to moderate marking or grading of individual assessment instruments and unit grade decisions.

The Moderation Model

Moderation within the ACT encompasses structured, consensus-based peer review of Unit Grades for all accredited courses over two Moderation Days. In addition to Moderation Days, there is statistical moderation of course scores, including small group procedures, for T courses.

Moderation by Structured, Consensus-based Peer Review

Consensus-based peer review involves the review of student work against system wide criteria and standards and the validation of Unit Grades. This is done by matching student performance with the criteria and standards outlined in the Achievement Standards, as stated in the Framework. Advice is then given to colleges to assist teachers with, or confirm, their judgments. In addition, feedback is given on the construction of assessment instruments.

Preparation for Structured, Consensus-based Peer Review

Each year, teachers of Year 11 are asked to retain originals or copies of student work completed in Semester 2. Similarly, teachers of a Year 12 class should retain originals or copies of student work completed in Semester 1. Assessment and other documentation required by the Office of the Board of Senior Secondary Studies should also be kept. Year 11 work from Semester 2 of the previous year is presented for review at Moderation Day 1 in March, and Year 12 work from Semester 1 is presented for review at Moderation Day 2 in August.

In the lead up to Moderation Day, a College Course Presentation (comprised of a document folder and a set of student portfolios) is prepared for each A, T and M course/units offered by the school and is sent into the Office of the Board of Senior Secondary Studies.

The College Course Presentation

The package of materials (College Course Presentation) presented by a college for review on Moderation Days in each course area will comprise the following:

- a folder containing supporting documentation as requested by the Office of the Board through memoranda to colleges, including marking schemes and rubrics for each assessment item
- a set of student portfolios containing marked and/or graded written and non-written assessment responses and completed criteria and standards feedback forms. Evidence of all assessment responses on which the Unit Grade decision has been made is to be included in the student review portfolios.

Specific requirements for subject areas and types of evidence to be presented for each Moderation Day will be outlined by the Board Secretariat through the *Requirements for Moderation Memoranda* and Information Papers.

Visual evidence for judgements made about practical performances

It is a requirement that schools' judgements of standards to practical performances (A/T/M) be supported by visual evidence (still photos or video).

The photographic evidence submitted must be drawn from practical skills performed as part of the assessment process.

Teachers should consult the BSSS website for current information regarding all moderation requirements including subject specific and photographic evidence.

Appendix B – Course Developers

Name	College
Associate Professor Dr Nenad Naumovski	University of Canberra
Cathleen Jackson	Radford College
Janelle Jolly	St Mary MacKillop College
James Philips	Lake Tuggeranong College

Appendix C – Common Curriculum Elements

Common curriculum elements assist in the development of high-quality assessment tasks by encouraging breadth and depth and discrimination in levels of achievement.

Organisers	Elements	Examples
create, compose and apply	apply	ideas and procedures in unfamiliar situations, content and processes in non-routine settings
	compose	oral, written and multimodal texts, music, visual images, responses to complex topics, new outcomes
	represent	images, symbols or signs
	create	creative thinking to identify areas for change, growth and innovation, recognise opportunities, experiment to achieve innovative solutions, construct objects, imagine alternatives
	manipulate	images, text, data, points of view
analyse, synthesise and evaluate	justify	arguments, points of view, phenomena, choices
	hypothesise	statement/theory that can be tested by data
	extrapolate	trends, cause/effect, impact of a decision
	predict	data, trends, inferences
	evaluate	text, images, points of view, solutions, phenomenon, graphics
	test	validity of assumptions, ideas, procedures, strategies
	argue	trends, cause/effect, strengths and weaknesses
	reflect	on strengths and weaknesses
	synthesise	data and knowledge, points of view from several sources
	analyse	text, images, graphs, data, points of view
	examine	data, visual images, arguments, points of view
	investigate	issues, problems
organise, sequence and explain	sequence	text, data, relationships, arguments, patterns
	visualise	trends, futures, patterns, cause and effect
	compare/contrast	data, visual images, arguments, points of view
	discuss	issues, data, relationships, choices/options
	interpret	symbols, text, images, graphs
	explain	explicit/implicit assumptions, bias, themes/arguments, cause/effect, strengths/weaknesses
	translate	data, visual images, arguments, points of view
	assess	probabilities, choices/options
	select	main points, words, ideas in text
identify, summarise and plan	reproduce	information, data, words, images, graphics
	respond	data, visual images, arguments, points of view
	relate	events, processes, situations
	demonstrate	probabilities, choices/options
	describe	data, visual images, arguments, points of view
	plan	strategies, ideas in text, arguments
	classify	information, data, words, images
	identify	spatial relationships, patterns, interrelationships
	summarise	main points, words, ideas in text, review, draft and edit

Appendix D – Glossary of Verbs

Verbs	Definition
Analyse	Consider in detail for the purpose of finding meaning or relationships, and identifying patterns, similarities and differences
Apply	Use, utilise or employ in a particular situation
Argue	Give reasons for or against something
Assess	Make a Judgement about the value of
Classify	Arrange into named categories in order to sort, group or identify
Compare	Estimate, measure or note how things are similar or dissimilar
Compose	The activity that occurs when students produce written, spoken, or visual texts
Contrast	Compare in such a way as to emphasise differences
Create	Bring into existence, to originate
Critically analyse	Analysis that engages with criticism and existing debate on the issue
Demonstrate	Give a practical exhibition an explanation
Describe	Give an account of characteristics or features
Discuss	Talk or write about a topic, taking into account different issues or ideas
Evaluate	Examine and judge the merit or significance of something
Examine	Determine the nature or condition of
Explain	Provide additional information that demonstrates understanding of reasoning and /or application
Extrapolate	Infer from what is known
Hypothesise	Put forward a supposition or conjecture to account for certain facts and used as a basis for further investigation by which it may be proved or disproved
Identify	Recognise and name
Interpret	Draw meaning from
Investigate	Planning, inquiry into and drawing conclusions about
Justify	Show how argument or conclusion is right or reasonable
Manipulate	Adapt or change
Plan	Strategize, develop a series of steps, processes
Predict	Suggest what might happen in the future or as a consequence of something
Reflect	The thought process by which students develop an understanding and appreciation of their own learning. This process draws on both cognitive and affective experience
Relate	Tell or report about happenings, events or circumstances
Represent	Use words, images, symbols or signs to convey meaning
Reproduce	Copy or make close imitation
Respond	React to a person or text
Select	Choose in preference to another or others
Sequence	Arrange in order
Summarise	Give a brief statement of the main points
Synthesise	Combine elements (information/ideas/components) into a coherent whole
Test	Examine qualities or abilities
Translate	Express in another language or form, or in simpler terms
Visualise	The ability to decode, interpret, create, question, challenge and evaluate texts that communicate with visual images as well as, or rather than, words

Appendix E – Glossary for ACT Senior Secondary Curriculum

Courses will detail what teachers are expected to teach and students are expected to learn for year 11 and 12. They will describe the knowledge, understanding and skills that students will be expected to develop for each learning area across the years of schooling.

Learning areas are broad areas of the curriculum, including English, mathematics, science, the arts, languages, health and physical education.

A **subject** is a discrete area of study that is part of a learning area. There may be one or more subjects in a single learning area.

Frameworks are system documents for Years 11 and 12 which provide the basis for the development and accreditation of any course within a designated learning area. In addition, frameworks provide a common basis for assessment, moderation and reporting of student outcomes in courses based on the framework.

The **course** sets out the requirements for the implementation of a subject. Key elements of a course include the rationale, goals, content descriptions, assessment, and achievement standards as designated by the framework.

BSSS courses will be organised into units. A unit is a distinct focus of study within a course. A standard 1.0 unit is delivered for a minimum of 55 hours generally over one semester.

Core units are foundational units that provide students with the breadth of the subject.

Additional units are avenues of learning that cannot be provided for within the four core 1.0 standard units by an adjustment to the program of learning.

An **Independent Study unit** is a pedagogical approach that empowers students to make decisions about their own learning. Independent Study units can be proposed by a student and negotiated with their teacher but must meet the specific unit goals and content descriptions as they appear in the course.

An **elective** is a lens for demonstrating the content descriptions within a standard 1.0 or half standard 0.5 unit.

A **lens** is a particular focus or viewpoint within a broader study.

Content descriptions refer to the subject-based knowledge, understanding and skills to be taught and learned.

A **program of learning** is what a college develops to implement the course for a subject and to ensure that the content descriptions are taught and learned.

Achievement standards provide an indication of typical performance at five different levels (corresponding to grades A to E) following completion of study of senior secondary course content for units in a subject.

ACT senior secondary system **curriculum** comprises all BSSS approved courses of study.

Appendix F – Course Adoption Form

Conditions of Adoption

The course and units of this course are consistent with the philosophy and goals of the college and the adopting college has the human and physical resources to implement the course.

Adoption Process

Course adoption must be initiated electronically by an email from the principal or their nominated delegate to bssscertification@ed.act.edu.au. A nominated delegate must CC the principal.

The email will include the **Conditions of Adoption** statement above, and the table below adding the **College** name, and circling the **Classification/s** required.

College:	
Course Title:	Food Science and Nutrition
Classification/s:	A T M
Accredited from:	2021
Framework:	Science