Primary Industries Curriculum Framework

Stage 6 Syllabus

based on the AHC Agriculture, Horticulture and Conservation and Land Management Training Package (version 2)

for implementation from 2018

Acknowledgements

Contents

1 Introduction to the Primary Industries Curriculum Framework

Industry curriculum frameworks provide students with the opportunity to gain industry-recognised national vocational qualifications under the Australian Qualifications Framework (AQF) as part of their NSW Higher School Certificate (HSC).

HSC courses within industry curriculum frameworks count as Board Developed unit credit for the HSC. Frameworks include an HSC examination which provides the opportunity for students to have this HSC examination mark contribute to the calculation of their Australian Tertiary Admission Rank (ATAR).

1.1 AQF VET qualifications available in the Primary Industries Curriculum Framework

The Primary Industries Curriculum Framework is based on qualifications and units of competency contained in the nationally endorsed *AHC Agriculture, Horticulture and Conservation and Land Management Training Package.*

The AQF VET qualifications available in the Primary Industries Curriculum Framework are:

- AHC20116 Certificate II in Agriculture
- AHC20416 Certificate II in Horticulture
- AHC21016 Certificate II in Conservation and Land Management
- AHC21216 Certificate II in Rural Operations
- AHC30116 Certificate III in Agriculture.

1.2 Industry context – primary industries

Australia remains a world leader in rural and related industries. These industries are key drivers of our state's economy, and primary industries provide many social, environmental, cultural and economic benefits to the people of NSW. Sustainability of the country's natural resources is the subject of regular debate in the Australian community.

Our agriculture, horticulture and conservation and land management industry sectors operate in a dynamic environment shaped by a range of natural factors, and policy frameworks.

Natural resources and primary products are crucial to our lives. The various sectors of primary industries supply us with many products and services essential to life, including food, fibre, timber and energy, as well as the basic materials used in other industries.

Demand for products and services from primary industries in an environment featuring economic growth, climate change and diminishing resources will test the technologies, work practices and people in the industry. The extent of change demands the adoption of new skills and increased knowledge across the entire workforce.

The primary industries sector is a significant employer in Australia, particularly in regional and rural areas. Agriculture, horticulture and conservation and land management industry sectors offer a wide and diverse range of career opportunities and pathways, both within and across organisations and industry sectors.[1]

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[1] www.skillsimpact.com.au

1.3 HSC VET course and AQF VET qualification completion requirements

The requirements for the completion of an HSC VET course are different to the requirements for AQF VET qualification completion. Registered Training Organisations (RTOs) need to ensure that delivery of courses meets HSC course requirements and complies with Training Package rules.

1.3.1 HSC VET course requirements

HSC VET courses in the Primary Industries Curriculum Framework are made up of:

- units of competency
  - associated HSC **mandatory** units of competency
  - associated HSC **stream** units of competency
  - HSC **elective** units of competency
- HSC outcomes and content
- mandatory HSC work placement requirements.

For a student to be considered to have satisfactorily completed a course within the Primary Industries Curriculum Framework they must meet the:

- HSC VET course requirements (refer to Sections 2.2–2.5 of this Syllabus)
- requirements for satisfactory course completion (refer to the NSW Education Standards Authority (NESA) *Assessment Certification Examination (ACE) website*). There must be sufficient evidence that the student has:
  - followed the course developed by NESA
  - applied themselves with diligence and sustained effort to the set tasks and experiences provided in the course
  - achieved some or all of the course outcomes
  - undertaken the mandatory work placement.

1.3.2 AQF VET qualification requirements

To receive AQF VET qualifications, students must meet the assessment requirements of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* (training.gov.au).

AQF VET qualifications are determined by the qualification rules for each Training Package, referred to as *qualification packaging rules*. The qualification packaging rules describe the number and range of **core** and **elective** units of competency required for eligibility for an AQF VET qualification.

Units of competency should be selected to meet qualification packaging rules for the intended qualification pathway. Selection of units of competency should also be guided by the job outcome sought and local industry requirements.

Qualification packaging rules for each AQF VET qualification available through the Primary Industries Curriculum Framework are contained in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package*. *Associated documents* have been developed to describe how qualifications can be achieved through the Framework.

1.4   HSC VET course delivery

HSC VET courses can only be delivered by an RTO with the relevant qualification and units of competency on their scope of registration. Scope of registration can be checked at training.gov.au.

RTOs offering training programs for the delivery and assessment of the Primary Industries HSC VET courses must meet the requirements of the VET Quality Framework, the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* and the HSC course.

Information about the delivery of HSC VET courses by RTOs other than school system RTOs or TAFE NSW is contained on the ACE website.

Non-government schools outsourcing delivery of HSC VET courses to external providers also need to refer to the *Registered and Accredited Individual Non-government Schools (NSW) Manual* or *Registration Systems and Member Non-government Schools (NSW) Manual*.

1.5   Outcomes and content

The HSC outcomes and content for this industry curriculum framework are defined in:

- the units of competency (refer to Section 2.5 of this Syllabus)
- HSC Content focus areas (refer to Section 3 of this Syllabus).

1.6   Assessment requirements and advice

HSC VET courses are competency-based. NESA and the VET Quality Framework require that a competency-based approach to assessment is used. For more advice on appropriate assessment practice in relation to the Primary Industries Curriculum Framework see *Assessment and Reporting in Primary Industries Stage 6* document.

An integrated or holistic approach to course delivery and assessment should be adopted.

2 Course structures and requirements

2.1 Primary Industries HSC VET courses

This Framework specifies the range of industry-developed units of competency from the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* for inclusion in the HSC. It describes how these units of competency are arranged in HSC VET courses to gain unit credit for the HSC.

The Primary Industries Curriculum Framework contains the following courses:

- Primary Industries (120 indicative hours) – see Section 2.2 of this Syllabus
- Primary Industries (240 indicative hours) – see Section 2.3 of this Syllabus
- Primary Industries Specialisation Study (60 or 120 or 180 or 240 indicative hours) – see Section 2.4 of this Syllabus.

2.1.1 Unit credit for the Higher School Certificate

To facilitate flexibility of VET in the HSC, courses within the Primary Industries Curriculum Framework may be delivered as Preliminary, as HSC or as a combination of Preliminary and HSC units.

The HSC credit units will be allocated to students' Preliminary and/or HSC patterns of study as required.

The pattern of study (NESA course number) entered on Schools Online should reflect the delivery of the HSC VET course over successive years. For example, delivery of the 240 HSC indicative hour course over two years should be entered as 2 units x 2 years. Students will be credentialled for the HSC credit units entered each calendar year, provided they have satisfactorily completed the course requirements for that calendar year as determined by the school, college or RTO.

Table 1   HSC credit units for Primary Industries HSC courses

HSC VET course	HSC credit units
Primary Industries (120 indicative hours)	2
Primary Industries (240 indicative hours)	4
Primary Industries Specialisation Study (60 indicative hours)	1
Primary Industries Specialisation Study (120 indicative hours)	2
Primary Industries Specialisation Study (180 indicative hours)	3
Primary Industries Specialisation Study (240 indicative hours)	4

2.1.2   NESA course numbers

26810 – Primary Industries (120 indicative hours)

Pattern of study: 2 units x 1 year

Enter this NESA course number for either Year 11 (Preliminary) or Year 12 (HSC) on Schools Online.

26811 – Primary Industries (240 indicative hours)

Pattern of study: 2 units x 2 years

Enter this NESA course number for both Year 11 (Preliminary) and Year 12 (HSC) on Schools Online.

26812 – Primary Industries (240 indicative hours)

Pattern of study: 4 units x 1 year

Enter this NESA course number for either Year 11 (Preliminary) or Year 12 (HSC) on Schools Online.

26813 – Primary Industries Specialisation Study (60 indicative hours)

Pattern of study: 1 unit x 1 year

Enter this NESA course number for Year 12 (HSC) on Schools Online.

26814 – Primary Industries Specialisation Study (120 indicative hours)

Pattern of study: 2 units x 1 year

Enter this NESA course number for Year 12 (HSC) on Schools Online.

26815 – Primary Industries Specialisation Study (180 indicative hours)

Pattern of study: 3 units x 1 year

Enter this NESA course number for Year 12 (HSC) on Schools Online.

26816 – Primary Industries Specialisation Study (240 indicative hours)

Pattern of study: 4 units x 1 year

Enter this NESA course number for Year 12 (HSC) on Schools Online.

2.1.3   HSC examination number

26899 – Primary Industries examination

Enter this NESA examination number on Schools Online as a Year 12 (HSC) entry in the year the examination is undertaken.

2.1.4   Allocation of HSC indicative hours of credit

Units of competency drawn from Training Packages are not defined in terms of duration. The amount of time required by individual students to achieve competency will vary according to their aptitude and experience. Where a training program is designed for delivery by an RTO, the RTO will specify the length of the training program according to the delivery strategies and/or curriculum resources chosen.

However, for the purposes of the HSC, VET courses must be described in terms of their indicative hours. For this reason, indicative hours for unit credit towards the HSC have been assigned to each unit of competency within the Framework. It is emphasised that the assignment of indicative hours does not imply that all students will fulfil all requirements of a unit of competency within these hours. RTOs may determine that additional or fewer hours are required for the achievement of particular competencies. However, this does not alter the HSC indicative hours allocated, only the delivery hours.

Students may need to spend additional time practising skills in a work environment and completing projects and assignments, in order to fulfil Training Package assessment requirements.

The HSC indicative hours assigned to each unit of competency are listed in Section 2.5 of this Syllabus.

It is anticipated the majority of students completing the 240-hour course, under regular course arrangements would have the opportunity to achieve a Certificate II qualification.

2.1.5   Work placement requirements

Work placement is a mandatory HSC requirement within this Framework and minimum hours have been assigned to HSC VET courses.

Work placement is to be undertaken in an appropriate primary industries work environment.

Students undertaking courses as part of a school-based apprenticeship or traineeship will meet the mandatory work placement hour requirements through the on-the-job training component of the apprenticeship or traineeship.

For units of competency that must be assessed in a primary industries work environment, work placement provides an opportunity to collect evidence required for a student to be deemed competent.

Recognition of Prior Learning (RPL) may be granted for mandatory work placement requirements. Students' outside employment (ie not under the auspices of the school) may be recognised towards the requirement for work placement in a VET course (ACE 8051).

Non-completion of work placement is grounds for withholding the HSC course. Schools and colleges are advised to follow the procedure for issuing 'N' determinations as outlined on the ACE website.

Students must complete the following work placement for Primary Industries Curriculum Framework courses.

Table 2   Minimum work placement hours for Primary Industries HSC courses

Primary Industries Framework course	Minimum work placement requirement
Primary Industries (120 indicative hours)	35 hours
Primary Industries (240 indicative hours)	70 hours
Primary Industries Specialisation Study (60 indicative hours)	no additional hours required
Primary Industries Specialisation Study (120 or 180 or 240 indicative hours)	additional 35 hours

For more information see *Work Placement in Primary Industries.*

2.2   Primary Industries (120 indicative hours)

AQF VET qualifications

The Primary Industries (120 indicative hours) course provides a pathway to the following qualifications:

Statement of Attainment towards:

- AHC20116 Certificate II in Agriculture
- AHC20416 Certificate II Horticulture
- AHC21016 Certificate II in Conservation and Land Management
- AHC21216 Certificate II in Rural Operations
- AHC30116 Certificate III in Agriculture

Course structure

This course consists of a selection of units of competency from the HSC mandatory, streams and/or elective pool to a minimum of 120 HSC indicative hours.

(See Section 2.5, Tables 4–6 of this Syllabus.)

Course requirements – Primary Industries (120 indicative hours)

Students **must** attempt:

> a selection of units of competency from the **HSC mandatory, streams** and/or **elective pool** to a minimum of **120 HSC indicative hours**
> (Section 2.5, Tables 4-6)

> a minimum of **35 hours of work placement**
> (Section 2.1.4)

2.3 Primary Industries (240 indicative hours)

AQF VET qualifications

The Primary Industries (240 indicative hours) course provides a pathway to the following qualifications:

- AHC20116 Certificate II in Agriculture
- AHC20416 Certificate II Horticulture
- AHC21016 Certificate II in Conservation and Land Management
- AHC21216 Certificate II in Rural Operations

Statement of Attainment towards:

- AHC30116 Certificate III in Agriculture

Course structure

This course consists of:

- five mandatory focus areas (containing nine associated units of competency – students undertake five units)
- two stream focus areas:
    - Livestock health and welfare (containing two associated units of competency – if selected, students undertake one unit)
    - Plant pests, diseases and disorders (containing two associated units of competency – if selected, students undertake one unit)
- a range of elective units of competency which can be selected from the stream not already undertaken and/or the HSC elective pool
- HSC Content – for the mandatory and stream focus areas.

(See Section 2.5, Tables 4–6 and Section 3 of this Syllabus.)

Primary Industries HSC examination

An external written Higher School Certificate examination will be conducted for the 240 indicative hour course (refer to Section 4 of this Syllabus).

The HSC Content (focus areas) for the HSC examination is detailed in Section 3 of this Syllabus.

Course requirements – Primary Industries (240 indicative hours) – students attempt **ONE** of the following:

Pathway to AHC20116 Certificate II in Agriculture	Pathway to AHC20416 Certificate II in Horticulture	Pathway to AHC21016 Certificate II in Conservation and Land Management	Pathway to AHC21216 Certificate II in Rural Operations	Pathway to Statement of Attainment towards AHC30116 Certificate III in Agriculture
FIVE mandatory units of competency (Section 2.5, Table 4) *with the following focus areas* **Chemicals Safety Sustainability Weather Working in the industry** (Section 3)	**FIVE mandatory** units of competency (Section 2.5, Table 4) *with the following focus areas* **Chemicals Safety Sustainability Weather Working in the industry** (Section 3)	**FIVE mandatory** units of competency (Section 2.5, Table 4) *with the following focus areas* **Chemicals Safety Sustainability Weather Working in the industry** (Section 3)	**FIVE mandatory** units of competency (Section 2.5, Table 4) *with the following focus areas* **Chemicals Safety Sustainability Weather Working in the industry** (Section 3)	**FIVE mandatory** units of competency (Section 2.5, Table 4) *with the following focus areas* **Chemicals Safety Sustainability Weather Working in the industry** (Section 3)
ONE stream unit of competency (Section 2.5, Table 5) *with the* **Livestock health and welfare** OR **Plant pests, diseases and disorders focus area** (Section 3)	**ONE stream** unit of competency (Section 2.5, Table 5) *with the* **Plant pests, diseases and disorders focus area** (Section 3)	**ONE stream** unit of competency (Section 2.5, Table 5) *with the* **Plant pests, diseases and disorders focus area** (Section 3)	**ONE stream** unit of competency (Section 2.5, Table 5) *with the* **Livestock health and welfare** OR **Plant pests, diseases and disorders focus area** (Section 3)	**ONE stream** unit of competency (Section 2.5, Table 5) *with the* **Livestock health and welfare** OR **Plant pests, diseases and disorders focus area** (Section 3)
HSC elective units of competency to minimum of **135 HSC indicative hours** from stream not already undertaken and/or elective pool (Section 2.5, Tables 5–6)	HSC elective units of competency to minimum of **135 HSC indicative hours** from stream not already undertaken and/or elective pool (Section 2.5, Tables 5–6)	HSC elective units of competency to minimum of **135 HSC indicative hours** from stream not already undertaken and/or elective pool (Section 2.5, Tables 5–6)	HSC elective units of competency to minimum of **135 HSC indicative hours** from stream not already undertaken and/or elective pool (Section 2.5, Tables 5–6)	HSC elective units of competency to minimum of **115 HSC indicative hours** from stream not already undertaken and/or elective pool (Section 2.5, Tables 5–6)
a minimum of **70 hours of work placement** (Section 2.1.4)	a minimum of **70 hours of work placement** (Section 2.1.4)	a minimum of **70 hours of work placement** (Section 2.1.4)	a minimum of **70 hours of work placement** (Section 2.1.4)	a minimum of **70 hours of work placement** (Section 2.1.4)

2.4 Primary Industries Specialisation Study (60 or 120 or 180 or 240 indicative hours)

Course eligibility

The Primary Industries Specialisation Study is for students with particular interest in, and aptitude for, the industry. Students need to be currently entered in, or have completed, the Primary Industries (240 indicative hours) course to undertake a Primary Industries Specialisation Study course.

The Primary Industries Specialisation Study:

- provides students with the opportunity to complete the Certificate III in Agriculture qualification that they commenced in the 240-hour Primary Industries course *(60 or 120-hour Specialisation Study course only)*

  or

- provides students who are undertaking a Certificate II qualification through the 240-hour course with the opportunity to gain another Certificate II qualification (*120-hour Specialisation Study course only*)

  or

- provides students who have achieved a Certificate II qualification through the 240-hour course with the opportunity to commence study towards, or attain, the Certificate III in Agriculture qualification (see note pp 16–17) (*60 or 120 or 180 or 240-hour Specialisation Study course*).

AQF VET qualifications

The *Primary Industries Specialisation Study (60 indicative hours)* course provides a pathway to the following qualification:

- AHC30116 Certificate III in Agriculture

The *Primary Industries Specialisation Study (120 indicative hours)* course provides a pathway to the following qualifications:

- AHC20116 Certificate II in Agriculture
- AHC20416 Certificate II Horticulture
- AHC21016 Certificate II in Conservation and Land Management
- AHC21216 Certificate II in Rural Operations
- AHC30116 Certificate III in Agriculture

The *Primary Industries Specialisation Study (180 or 240 indicative hours)* course provides a pathway to the following qualification:

- AHC30116 Certificate III in Agriculture

Course structure

The Primary Industries Specialisation Study consists of units of competency (not previously undertaken) drawn from the alternate associated units of competency and/or HSC elective pool.

(See Section 2.5, Tables 4–6 of this Syllabus.)

Course requirements – Primary Industries Specialisation Study (60 or 120 or 180 or 240 indicative hours)

Students **must** attempt:

> a minimum of **60 or 120 or 180 or 240 HSC indicative hours** of units of competency not previously undertaken from the alternate associated units of competency and/or **elective pool**
> (Section 2.5, Tables 4–6)

> no additional work placement hours for for the 60-hour course
> a minimum of **35 hours of work placement** for the 120 or 180 or 240-hour course
> (Section 2.1.4)

Note

For students commencing study towards Certificate III in Agriculture following achievement of Certificate II in Agriculture or Certificate II in Horticulture or Certificate II in Conservation and Land Management or Certificate II in Rural Operations, there are variations to the HSC indicative hours allocated to some units of competency. This is because there is significant overlap of content between some units of competency listed in the Certificate II and Certificate III qualifications.

In recognition of the HSC credit already gained through the study of the associated mandatory or stream Certificate II units of competency, the related Certificate III units of competency have been allocated 'gap HSC indicative hours'. In most cases students will need only to undertake gap training and further assessment to meet the requirements of these units of competency.

The gap HSC indicative hours for the Primary Industries Specialisation (60 or 120 or 180 or 240 indicative hours) course are outlined in Table 3 on the following page. These hours must be considered when selecting units of competency to meet course HSC indicative hour requirements and qualification packaging rules.

Table 3   Primary Industries Specialisation Study Gap HSC indicative hours

Unit code	Unit title	Gap HSC indicative hours	related Certificate II unit of competency
AHCCHM303	Prepare and apply chemicals	5	AHCCHM201
AHCLSK309	Implement animal health control programs	5	AHCLSK202
AHCWHS301	Contribute to work health and safety processes	5	AHCWHS201
AHCPMG302	Control plant pests, diseases and disorders	5	AHCPMG202
AHCWRK302	Monitor weather conditions	5	AHCWRK201
AHCWRK309	Apply environmentally sustainable work practices	5	AHCWRK209

2.5 Primary Industries units of competency

Details of units of competency listed in Tables 4–6 are available in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* at training.gov.au.

Table 4   Associated mandatory units of competency for the 240-hour course

Attempt the following units of competency:

Unit code and title	HSC indicative hours of credit
Chemicals	
AHCCHM201 Apply chemicals under supervision	20
or	
AHCCHM303 Prepare and apply chemicals	20
Safety	
AHCWHS201 Participate in work health and safety processes	15
or	
AHCWHS301 Contribute to work health and safety processes	20
Sustainability	
AHCWRK209 Participate in environmentally sustainable work practices	15
or	
AHCWRK309 Apply environmentally sustainable work practices	20
Weather	
AHCWRK201 Observe and report on weather	15
or	
AHCWRK302 Monitor weather conditions	20
Working in the industry	
AHCWRK204 Work effectively in the industry	20

Total HSC indicative hours for mandatory:	**85 – 100**

For the 240-hour course, attempt ONE of the following stream units of competency:

Table 5   Associated stream units of competency for the 240-hour course

Unit code and title	HSC indicative hours of credit
Livestock health and welfare	
AHCLSK202 Care for health and welfare of livestock	20
or	
AHCLSK309 Implement animal health control programs	25

Total HSC indicative hours for stream:	**20 – 25**

OR

Unit code and title	HSC indicative hours of credit
Plant pests, diseases and disorders	
AHCPMG202 Treat plant pests, diseases and disorders	20
or	
AHCPMG302 Control plant pests, diseases and disorders	25

Total HSC indicative hours for stream:	**20 – 25**

PLUS a selection of unit/s of competency from the stream not already undertaken AND/ OR the HSC elective pool to bring course total to 240 HSC indicative hours:

Table 6   HSC elective pool

Unit code and title	HSC indicative hours of credit
Biosecurity	
AHCBIO201 Inspect and clean machinery for plant, animal and soil material	10
AHCBIO202 Follow site quarantine procedures	15
Broadacre cropping	
AHCBAC201 Assist agricultural crop establishment	15
AHCBAC202 Assist agricultural crop maintenance	15
AHCBAC203 Assist agricultural crop harvesting	15
AHCBAC302 Establish pastures and crops for livestock production	25
Chemicals	
AHCCHM304 Transport and store chemicals	15
Dairy	
AHCDRY201 Milk livestock	20
Drainage	
AHCDRG201 Maintain drainage systems	15
AHCDRG301 Install drainage systems	30
Equine	
ACMEQU202 Handle horses safely Prerequisite: ACMEQU205	30
ACMEQU205 Apply knowledge of horse behaviour	30
Fauna	
AHCFAU201 Recognise fauna	15
First aid	
HLTAID002 Provide basic emergency life support	10
HLTAID003 Provide first aid	20

Unit code and title	HSC indicative hours of credit
Horse breeding	
ACMHBR201 Check and treat horses Prerequisite: ACMEQU202	20
ACMHBR203 Provide daily care for horses Prerequisite: ACMEQU205	25
ACMHBR302 Carry out basic hoof care procedures Prerequisite: ACMEQU202	15
ACMHBR305 Assess suitability of horses for specific uses Prerequisite: ACMEQU202	20
Indigenous land management	
AHCILM201 Maintain cultural places	15
AHCILM202 Observe and report plants or animals	15
AHCILM203 Record information about Country	25
AHCILM306 Follow Aboriginal cultural protocols	30
Infrastructure	
AHCINF201 Carry out basic electric fencing operations	10
AHCINF202 Install, maintain and repair farm fencing	15
AHCINF203 Maintain properties and structures	20
AHCINF302 Plan and construct an electric fence	25
AHCINF303 Plan and construct conventional fencing	20
Irrigation	
AHCIRG215 Assist with low volume irrigation operations	15
AHCIRG216 Assist with surface irrigation operations	15
AHCIRG217 Assist with pressurised irrigation operations	15
Landscape	
AHCLSC201 Assist with landscape construction work	15
AHCLSC202 Construct low-profile timber or modular retaining walls	20
AHCLSC203 Install aggregate paths	20

Unit code and title	HSC indicative hours of credit
Landscape cont/d	
AHCLSC204 Lay paving	25
AHCLSC205 Install tree protection devices	10
Livestock	
AHCLSK201 Assist with feeding in a production system	15
AHCLSK204 Carry out regular livestock observation	10
AHCLSK205 Handle livestock using basic techniques	15
AHCLSK206 Identify and mark livestock	10
AHCLSK207 Load and unload livestock	10
AHCLSK208 Monitor livestock to parturition	15
AHCLSK209 Monitor water supplies	10
AHCLSK210 Muster and move livestock	10
AHCLSK211 Provide feed for livestock	10
AHCLSK217 Apply animal welfare principles to handling and husbandry of livestock	10
AHCLSK301 Administer medication to livestock	15
AHCLSK303 Carry out feedlot operations	15
AHCLSK305 Maintain livestock water supplies	15
AHCLSK308 Identify and draft livestock	20
AHCLSK311 Implement feeding plans for livestock	20
AHCLSK312 Coordinate artificial insemination and fertility management of livestock	25
AHCLSK314 Prepare animals for parturition	20
AHCLSK316 Prepare livestock for competition	15
AHCLSK323 Maintain and monitor feed stocks	15
AHCLSK324 Care for and train working dogs	20
AHCLSK331 Comply with industry animal welfare requirements	20

Unit code and title	HSC indicative hours of credit
Machinery operation and maintenance	
AHCMOM201 Operate two wheel motorbikes	15
AHCMOM202 Operate tractors	20
AHCMOM203 Operate basic machinery and equipment	15
AHCMOM204 Undertake operational maintenance of machinery	25
AHCMOM211 Operate side by side utility vehicles	15
AHCMOM212 Operate quad bikes	15
AHCMOM304 Operate machinery and equipment	15
Natural area restoration	
AHCNAR201 Carry out natural area restoration works	25
AHCNAR202 Maintain wildlife habitat refuges	20
AHCNAR305 Collect native seed	15
Nursery	
AHCNSY201 Pot up plants	10
AHCNSY202 Care for nursery plants	15
AHCNSY203 Undertake propagation activities	20
AHCNSY204 Maintain indoor plants	15
AHCNSY301 Maintain nursery plants	25
Parks and gardens	
AHCPGD201 Plant trees and shrubs	15
AHCPGD202 Prepare and maintain plant displays	15
AHCPGD203 Prune shrubs and small trees	15
AHCPGD204 Transplant small trees	15
AHCPGD206 Conduct visual inspection of park facilities	15
Pest management	
AHCPMG201 Treat weeds	10

Unit code and title	HSC indicative hours of credit
Pest management cont/d	
AHCPMG301 Control weeds	25
Plants	
AHCPCM201 Recognise plants	20
AHCPCM202 Collect, prepare and preserve plant specimens	15
AHCPCM301 Implement a plant nutrition program	25
Production horticulture	
AHCPHT201 Plant horticultural crops	20
AHCPHT203 Support horticultural crop harvesting	20
AHCPHT205 Carry out post-harvest operations	20
Shearing	
AHCSHG201 Crutch sheep	20
AHCSHG202 Assist in preparing for shearing and crutching	15
AHCSHG205 Grind combs and cutters for machine shearing	10
AHCSHG206 Prepare handpiece and downtube for machine shearing	10
AHCSHG210 Undertake basic shearing and crutching	20
Soil and water conservation	
AHCSAW201 Conduct erosion and sediment control activities	15
Soils and media	
AHCSOL202 Assist with soil or growing media sampling and testing	15
Wool	
AHCWOL201 Pen sheep	15
AHCWOL202 Perform board duties	20
AHCWOL203 Carry out wool pressing	15
Work	
AHCWRK202 Observe environmental work practices	15

Unit code and title	HSC indicative hours of credit
Work cont/d	
AHCWRK205 Participate in workplace communications	10
AHCWRK206 Observe enterprise quality assurance procedures	15
AHCWRK207 Collect and record production data	10
AHCWRK208 Provide information on products and services	15
AHCWRK303 Respond to emergencies	20
AHCWRK305 Coordinate work site activities	20
AHCWRK306 Comply with industry quality assurance requirements	20

3   HSC Content

The HSC Content for this industry curriculum framework is organised into focus areas. Each focus area prescribes the scope of learning for the HSC. This is drawn from the associated units of competency.

Students undertaking the 240 indicative hour course from the Primary Industries Curriculum Framework must address **all of the mandatory focus areas** plus **one stream focus area**.

The Primary Industries Curriculum Framework **mandatory** focus areas are:

- Chemicals
- Safety
- Sustainability
- Weather
- Working in the industry.

The Primary Industries Curriculum Framework **stream** focus areas are:

- Livestock health and welfare
- Plant pests, diseases and disorders.

The HSC examination in Primary Industries is based on the HSC Content in this Framework (refer to Section 4 of this Syllabus).

The following table outlines the associated units of competency for each focus area.

Table 7   Focus areas and associated units of competency

Mandatory

Focus area	Unit code	Unit title
Chemicals	AHCCHM201 or AHCCHM303	Apply chemicals under supervision Prepare and apply chemicals
Safety	AHCWHS201 or AHCWHS301	Participate in work health and safety processes Contribute to work health and safety processes
Sustainability	AHCWRK209 or AHCWRK309	Participate in environmentally sustainable work practices Apply environmentally sustainable work practices
Weather	AHCWRK201 or AHCWRK302	Observe and report on weather Monitor weather conditions
Working in the industry	AHCWRK204	Work effectively in the industry

Stream

Focus area	Unit code	Unit title
Livestock health and welfare	AHCLSK202 or AHCLSK309	Care for health and welfare of livestock Implement animal health control programs
Plant pests, diseases and disorders	AHCPMG202 or AHCPMG302	Treat plant pests, diseases and disorders Control plant pests, diseases and disorders

3.1 Chemicals – mandatory focus area

3.1.1 Outcomes

The student:

- explains the processes for safe chemical use and application
- demonstrates an understanding of work health and safety (WHS) principles and practices when working with chemicals
- explains safe work practices within a compliance framework
- understands the principles of integrated pest/resistance management
- applies knowledge of working with chemicals to develop effective plans for the application of chemicals.

3.1.2 Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either

- AHCCHM201   Apply chemicals under supervision

or

- AHCCHM303   Prepare and apply chemicals

The application and elements for each of these units of competency are provided below.

AHCCHM201   Apply chemicals under supervision

Application   This unit of competency describes the skills and knowledge required to apply chemicals using workplace specific application equipment under supervision.

Elements   1.   Prepare to work
     2.   Check application equipment
     3.   Prepare application equipment
     4.   Apply chemicals
     5.   Transport and handle chemicals
     6.   Finalise work.

Assessment requirements for AHCCHM201 Apply chemicals under supervision are detailed in the Training Package.

AHCCHM303   Prepare and apply chemicals

Application   This unit of competency describes the skills and knowledge required to prepare and apply chemicals for the control of pests across a range of industry sectors.

Elements   1.   Determine the need for chemical use and prepare an application plan
     2.   Prepare chemical mixes
     3.   Calibrate application equipment
     4.   Apply chemicals
     5.   Clean up equipment and complete records.

Assessment requirements for AHCCHM303 Prepare and apply chemicals are detailed in the Training Package.

3.1.3 Scope of learning for the HSC

The scope of learning for the HSC should be addressed in the context of at least two relevant types of chemicals used in primary industries.

types

▪ types of chemical formulations used in primary industries:
  – dry
  – liquid
 	
▪ a range of types of chemicals commonly used in a primary industries workplace and their mode of action

equipment

▪ a range of chemical application equipment:
  – name and general features
  – purpose and limitations
  – considerations for selection:
    • task/job requirements
    • environmental factors
  – working knowledge:
    • pre-operational safety checks
    • prepare for use
    • safe work practices for operation
    • measures to minimise environmental impact
    • correct chemical output
  – fault identification:
    • signs of poor performance and inefficiency
    • common faults:
      o malfunctions
      o worn, broken or missing components
    • solutions to a range of common faults
  – maintenance:
    • operation and performance monitoring
    • cleaning and decontamination
    • scheduled servicing
  – operational records
  – storage

work health and safety

▪ risk management in relation to the use of chemicals
 	
▪ personal protective equipment (PPE) used when handling chemicals:
  – selection:
    • correct for task/job requirements

work health and safety cont/d

- importance of correct fit
  - use
  - application
  - cleaning and maintenance
  - storage

- minimising risk of poisoning to workers using chemicals:
  - path of entry:
    - inhalation
    - absorption
    - ingestion
    - injection
  - limiting exposure
  - first aid

- potential hazardous effects associated with the use of chemicals for humans, non-target organisms (animals and plants) and the environment

chemical compliance

- the handling and use of chemicals in a primary industries environment:
  - the purpose and intent of related legislative requirements
  - in accordance with workplace policy and procedures and manufacturer's instructions
  - with consideration of safe work practices and the environment

- licensing requirements for chemical use

working with chemicals

- use and interpret chemical labels and Safety Data Sheets (SDS):
  - the information provided
  - the meaning of symbols

- methods and techniques for measuring and calculating chemical use:
  - importance of accuracy
  - units of measurement
  - measuring equipment used when handling chemicals
  - the calculations performed:
    - addition
    - subtraction
    - division
    - multiplication
    - percentages
    - ratios
    - volume

working with chemicals cont/d

- – an understanding of:
  - calibration
  - decimal points
  - estimations
  - 'rounding off'
- – mixing chemicals

- procedures for loading chemicals into application equipment

- safe and effective chemical application in a primary industries workplace:
  - – assessing and recording meteorological conditions and forecasts
  - – following an application/spray plan
  - – re-entry and withholding periods

- workplace procedures in the event of a chemical spill

- clean-up procedures related to working with chemicals:
  - – requirements for disposal:
    - excess chemical
    - waste
    - containers
  - – triple rinse

- purpose and importance of recording and reporting chemical use:
  - – inventory
  - – pre-treatment notification
  - – application details

- storage of chemicals

- techniques and requirements when handling and transporting chemicals

integrated pest/resistance management

- an understanding of integrated pest/resistance management

- strategies for integrated pest/resistance management

- alternatives to chemicals for pest/resistance management

3.2   Safety – mandatory focus area

3.2.1   Outcomes

The student:

- demonstrates an understanding of work health and safety (WHS) compliance, participation and consultation in primary industries
- explains workplace policy, procedures and practices that ensure the safety of the primary industries worker and their colleagues and clients
- applies risk management in a primary industries workplace
- proposes appropriate responses to emergency situations.

3.2.2   Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either

- AHCWHS201   Participate in work health and safety processes

or

- AHCWHS301   Contribute to work health and safety processes

The application and elements for each of these units of competency are provided below.

AHCWHS201   Participate in work health and safety processes

Application   This unit of competency describes the skills and knowledge required to recognise and report hazards in the workplace. It also describes the skills and knowledge required to follow workplace safety procedures and directions.

Elements   1.   Follow workplace procedures for hazard identification and risk control
2.   Observe safe practices during work operations
3.   Participate in arrangements for maintaining the health and safety of all people in the workplace.

Assessment requirements for AHCWHS201 Participate in work health and safety processes are detailed in the Training Package.

AHCWHS301   Contribute to work health and safety processes

Application   This unit of competency describes the skills and knowledge required to carry out enterprise work health and safety policies and procedures.

Elements   1.   Apply work health and safety policies and procedures
2.   Assist in workplace hazard identification and risk control
3.   Observe safe practices during work operations
4.   Participate in arrangements for maintaining the health and safety of all people in the workplace.

Assessment requirements for AHCWHS301 Contribute to work health and safety processes are detailed in the Training Package.

3.2.3 Scope of learning for the HSC

work health and safety (WHS)

- meaning of health and safety

- implications of the cost of workplace injury:
  – human
  – social
  – economic
  – organisational

- acknowledge that WHS is everyone's responsibility in the workplace and the implications of this responsibility

- concept of 'participation' and 'consultation' in relation to WHS

- primary role/function of key bodies involved in WHS:
  – SafeWork NSW
  – Safe Work Australia
  – local councils
  – unions
  – professional associations

- internal and external sources of workplace WHS information

- importance of acting within scope of responsibility/level of authority in relation to WHS in the workplace:
  – taking initiative
  – problem-solving
  – decision-making

WHS compliance

- difference between an act, regulation, code of practice and standard (Australian, industry and workplace)

- purpose and intent of WHS legislation and codes of practice and their application to primary industries and a primary industries workplace and job role:
  – WHS legislation:
    • *Work Health and Safety Act 2011* (NSW) (as amended)
    • *Work Health and Safety Regulation 2017* (NSW) (as amended)
  – codes of practice related to:
    • hazardous substances and dangerous goods, including chemicals
    • manual handling
    • risk management
    • WHS consultation

- WHS rights, duties and responsibilities of the person conducting a business or undertaking (PCBU), officer and worker (as defined in the legislation)

WHS compliance cont/d

- consequences of failure to observe (non-compliance) WHS workplace policy and procedures and legislative requirements

- safety signs, symbols and barricades used in primary industries and their use in the workplace:
  - legislative requirements
  - meaning of colour and shape
  - placement and positioning

- industry and workplace requirements for monitoring and reporting in relation to workplace safety

- describe how, when and to whom to report:
  - types of reports:
    - formal and informal
    - written
    - verbal
  - reporting to appropriate person(s)

- purpose and importance of monitoring and reporting

- application of workplace policy and protocols and regulatory requirements when recording and reporting in relation to WHS

WHS consultation and participation

- opportunities for workers to provide input into WHS consultation and participation processes:
  - formal and informal discussion
  - meeting
  - survey
  - training
  - WHS audit
  - WHS inspection

- requirements (including election/formation) of a health and safety committee or health and safety representative (HSR) and their role and responsibilities in the workplace

- role and responsibilities of relevant personnel in WHS consultation and participation:
  - PCBU
  - manager/supervisor/team leader
  - self
  - other workers
  - union

- importance of identifying and reporting:
  - WHS issues and concerns

WHS consultation and participation cont/d

- – workplace hazards
- – unsafe work practices
- – breaches of health and safety
  and examples of each for the industry and workplace

risk management

- difference between a hazard and a risk

- risk management and its application in the primary industries workplace:
  - – hazard identification:
    - • potential hazards to self, colleagues, other people, animals and the environment
    - • range of hazards:
      - o human factors (self, colleagues and others)
      - o manual handling
      - o materials
      - o plants and animals
      - o tools, equipment and machinery
      - o work environment
      - o work processes and practices
  - – risk assessment
  - – risk control (hierarchy):
    - • eliminate the risk
    - • minimise the risk:
      - o substitution
      - o modification
      - o isolation
      - o engineering control
    - • other controls:
      - o administration
      - o safe work practices
      - o personal protective equipment (PPE)
    - • monitor and review

safe work procedures and practices

- safe work procedures and practices for a primary industries workplace and their purposes, including:
  - – WHS induction training (general, work activity and site-specific)
  - – adherence to:
    - • safe systems of work
    - • standard operating procedures (SOPs)
    - • work instructions and documentation
    - • workplace policy
  - – selection, use, maintenance and storage of PPE

safe work procedures and practices cont/d

- manual handling techniques:
  - when working individually, in pairs and with a team:
    - bending and twisting
    - moving, lifting, carrying and placing items down
    - working with tools, equipment and machinery
    - loading and unloading
    - transferring hazardous materials
    - using mechanical aids/lifting equipment
    - undertaking repetitious tasks
    - working at heights
  - recommended weight limits
- hazardous substances and dangerous goods:
  - correct handling, application, labelling, transport and storage
  - safety data sheet (SDS)
- tools and equipment:
  - selection appropriate to task/work activity
  - pre-operational checks and correct use
  - regular maintenance and correct storage
- access to appropriate communication processes and devices
- housekeeping:
  - clean-up procedures
  - storage and disposal of waste
  - consideration of WHS and the environment

▪ importance of safe work procedures and practices

▪ propose safe work procedures and practices for a primary industries workplace and job role

incidents, accidents and emergencies

▪ meaning of incident, accident and emergency

▪ a range of incidents, accidents and emergencies common to primary industries

▪ distinguish between a manageable first aid situation and an emergency situation

▪ range of potential injuries common to a primary industries workplace, their cause(s) and basic first aid for these injuries

▪ strategies to reduce workplace accidents, injury and impairment

▪ responding to incidents, accidents and emergencies:
  - emergency situations
  - seeking assistance
  - emergency contact numbers

incidents, accidents and emergencies cont/d

- – emergency signals, alarms and exits:
  - location
  - use
- – procedures to follow:
  - notification
  - workplace policy and procedures:
    - o evacuation
    - o security
  - reporting
- – basic process of fighting a fire and use of firefighting equipment:
  - fire blanket
  - fire extinguishers
  - fire hose and reel
- – role of personnel in an emergency
- – first aid:
  - basic principles
  - personnel responsible

- application of workplace policy and protocols and regulatory requirements when recording and reporting in relation to incidents, accidents and emergencies

3.3   Sustainability – mandatory focus area

3.3.1   Outcomes

The student:

- explains the fundamental principles of sustainability
- understands environmental hazard identification and risk control
- analyses resource consumption in the primary industries workplace
- evaluates the workplace in relation to environmentally sustainable work practices
- proposes improvements for resource efficiency and sustainability in a primary industries workplace.

3.3.2   Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either
- AHCWRK209   Participate in environmentally sustainable work practices

or
- AHCWRK309   Apply environmentally sustainable work practices

The application and elements for each of these units of competency are provided below.

AHCWRK209   Participate in environmentally sustainable work practices

Application   This unit of competency describes the skills and knowledge required to follow workplace procedures and instructions and to participate in environmentally sustainable work practices.

Elements   1.   Identify current resource use
2.   Comply with environmental regulations
3.   Seek opportunities to improve resource efficiency.

Assessment requirements for AHCWRK209 Participate in environmentally sustainable work practices are detailed in the Training Package.

AHCWRK309   Apply environmentally sustainable work practices

Application   This unit of competency describes the skills and knowledge required to apply environmentally sustainable work practices.

Elements   1.   Identify current practices in relation to resource usage and sustainability
2.   Contribute to the review of workplace environmental sustainability practices
3.   Apply improvement strategies
4.   Record and report on work practices.

Assessment requirements for AHCWRK309 Apply environmentally sustainable work practices are detailed in the Training Package.

3.3.3 Scope of learning for the HSC

environment

- current environmental issues affecting primary industries:
  - biodiversity
  - biosecurity
  - conservation
  - energy use and efficiency
  - fire management
  - natural resource management
  - recycling/re-use
  - resource use and efficiency
  - salinity
  - sustainability
  - waste management
  - water resource management

- concept of sustainability in the workplace and environmentally sustainable work practices

- potential impact of primary industries workplace practices on the environment

- consequences of poor environmental work practices on:
  - waterways
  - wildlife habitats
  - neighbouring properties

- environmental responsibilities of employees in a primary industries workplace:
  - following work instructions, standard operating procedures (SOPs) and inspection processes
  - reporting and communicating environmental issues
  - maintaining environmental records:
    - incident and accident reports
    - inspection reports

environmental hazard identification and risk control

- a range of environmental hazards and risks typical to a primary industries workplace, including:
  - chemical/gas spillage/leakage
  - discharge into waterways
  - faulty tools, equipment and machinery
  - inappropriate human interaction
  - natural disasters
  - pollution
  - soil erosion
  - wildlife habitat destruction

- personnel responsible for environmental hazard identification and risk control in a primary industries workplace

environmental hazard identification and risk control cont/d

- reporting environmental hazards and risks in a primary industries workplace:
    - to appropriate person(s)
    - verbal and written reporting

environmental compliance

- purpose and intent of environmental legislation and its application to primary industries and a primary industries workplace and job role

- definition of:
    - 'compliance'
    - 'best practice'

- levels of compliance in relation to environmental requirements:
    - workplace
    - industry
    - government (local, State/Territory and Commonwealth)
    - international

- consequences of failure to comply with environmental requirements

- workplace policy and procedures relating to environmental compliance

- individual worker and workplace responsibilities in relation to the environment

- industry and workplace requirements for monitoring and reporting in relation to the environment

- describing how, when and to whom to report:
    - types of reports:
        - formal and informal
        - written
        - verbal
    - reporting to appropriate person(s)

- primary role/function of key environmental bodies:
    - NSW Environment Protection Authority (EPA)
    - NSW Office of Environment and Heritage
    - Clean Energy Regulator (Australian Government)
    - Department of the Environment and Energy (Australian Government)
    - local councils

resources

- definition of 'resource'

- resources used in primary industries and in a workplace and job role:
    - energy

resources cont/d

- human
- infrastructure
- materials
- natural
- stock and supply
- technology and associated consumables

▪ concept of 'resource efficiency' in a primary industries work environment

▪ measuring and monitoring resource consumption within a primary industries workplace:
  - sources of data, including:
    • resources in work area
    • material use analysis
    • invoices from suppliers
    • stocktake
  - techniques to collect and measure resource consumption, including:
    • examination, measurement and documentation of resources, materials and products on the worksite and from suppliers
    • measuring resource usage under different conditions
    • monitoring and examination of data on efficiency and resource reduction
    • instructions and reports from other parties involved in the process of identifying and reporting on improvements
  - electronic and manual tools to measure and document resource use, including:
    • checklists
    • software:
      ○ spreadsheets
      ○ databases
      ○ graphs
    • stocktake tools

▪ opportunities for improved resource efficiency in a primary industries work environment

environmentally sustainable work practices

▪ strategies and procedures to work in an environmentally sustainable manner in a primary industries workplace and job role:
  - identification of environmental hazards and risks
  - use of renewable, recyclable, reusable and recoverable resources
  - efficient use of energy and resources
    • use of alternative forms of energy or energy conservation
    • reducing emissions of greenhouse gases
  - regular maintenance of tools, equipment and machinery
  - soil conservation
  - habitat protection
  - revegetation and stabilisation
  - waste management systems

environmentally sustainable work practices cont/d

- workplace policy and procedures for environmentally sustainable work practices

- examples of best practice in relation to sustainability in primary industries

- propose improvements for environmentally sustainable work practices for the workplace, team and individual worker

3.4 Weather – mandatory focus area

3.4.1 Outcomes

The student:

- understands the concepts of weather and climate
- interprets weather and climate information
- evaluates the impact of weather and climate on farming operations and work practices.

3.4.2 Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either
- AHCWRK201 Observe and report on weather

or
- AHCWRK302 Monitor weather conditions

The application and elements for each of these units of competency are provided below.

AHCWRK201 Observe and report on weather

Application   This unit of competency describes the skills and knowledge required to observe and report on weather and climate conditions.

Elements   1. Prepare to work
2. Check weather and climate information
3. Carry out preventative action
4. Monitor weather and climate.

Assessment requirements for AHCWRK201 Observe and report on weather are detailed in the Training Package.

AHCWRK302 Monitor weather conditions

Application   This unit of competency describes the skills and knowledge required to monitor and interpret weather and climate conditions and assess the likely impact.

Elements   1. Interpret weather and climate information
2. Carry out preventative action
3. Monitor weather and climate.

Assessment requirements for AHCHWRK302 Monitor weather conditions are detailed in the Training Package.

3.4.3 Scope of learning for the HSC

weather and climate

- the difference between weather and climate

- elements of weather and climate:
  - temperature:
    - heat
    - cold
  - humidity
  - wind:
    - wind chill
    - wind shear
  - precipitation
  - atmospheric pressure
  - atmospheric particle count

- meteorological conditions

- identification of weather and climate conditions:
  - likely
  - current
  - changes
  - signs
  - extreme

monitoring conditions

- access and use of a range of sources of weather and climate information:
  - Bureau of Meteorology
  - media
  - technology:
    - internet
    - interpretive tools
    - weather station
  - word of mouth

- range of different types of weather and climate information relevant to primary industries:
  - data
  - grazier alerts
  - reports
  - updates
  - warnings
  - forecasting techniques for monitoring weather conditions:
  - interpreting weather maps
  - taking local measurements:
    - temperature
    - precipitation
    - air pressure

monitoring conditions cont/d

- interpreting weather and climate information
- importance of maintaining current information

managing conditions

- potential implications of weather and climate changes for a primary industries workplace on the following:
  - crops
  - commercial decisions and activities
  - environment
  - livestock/grazing
  - natural resources
  - property
  - safety
  - work tasks

- primary industries workplace planning (long-term and contingency) for climate and weather conditions:
  - workplace operations
  - work practices
  - schedule of work tasks

- preventative action to minimise loss, damage or harm as a result of changes in weather and climate conditions, including revision and adjustment of work program and work tasks

reporting and recording

- lines of communication to appropriate personnel within a primary industries workplace

- industry and workplace requirements for documentation in relation to recording and reporting weather and climate conditions and changes

- purpose and importance of disseminating information to supervisors, colleagues and others

3.5   Working in the industry – mandatory focus area

3.5.1   Outcomes

The student:

- examines the nature of primary industries
- demonstrates an understanding of working in primary industries
- explains how to communicate and work effectively with others in a primary industries workplace
- applies industry and workplace standards to ensure quality work outcomes in primary industries
- explores how misunderstandings and conflict may be avoided or effectively managed in a range of situations common to primary industries work environments.

3.5.2   Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

- AHCWRK204   Work effectively in the industry

The application and elements for this unit of competency is provided below.

AHCWRK204   Work effectively in the industry

Application   This unit describes the skills and knowledge required to work effectively on an individual basis and with others as well as within a hierarchy of management.

Elements   1.   Obtain information about the industry
2.   Observe employment requirements
3.   Accept responsibility for quality of own work
4.   Plan and conduct own work
5.   Promote workplace cooperation
6.   Contribute to a productive work environment
7.   Undertake an activity to workplace requirements.

Assessment requirements for AHCWRK204 Work effectively in the industry are detailed in the Training Package.

3.5.3 Scope of learning for the HSC

information on the industry

- basic research skills in order to obtain information:
  - identifying relevant information
  - questioning techniques to obtain information
  - sorting, summarising and presenting information

- sources of information that can be used when gathering current and emerging information on primary industries:
  - colleagues and manager/supervisor/team leader
  - experienced industry personnel
  - industry bodies and professional associations
  - internet
  - journals
  - libraries
  - networks
  - personal observations and experience
  - suppliers
  - training courses
  - unions
  - workplace documents and manuals

- opportunities to source and use a range of current and emerging information on the industry:
  - integrate into daily work activities and operational duties
  - share researched information with colleagues

nature of the industry

- general features of primary industries including their relationship to other industries

- for sectors within primary industries
  - primary role/function(s)
  - product(s) and/or service(s) provided
  - occupational areas
  - examples of businesses/organisations
  - interrelationships between sectors

- organisational structures typical to primary industries workplaces

- primary role and duties performed by key personnel across primary industries sectors and a primary industries workplace

- current issues and trends affecting primary industries and implications for a primary industries workplace and own work practices

working in the industry

- the difference between legal and ethical

- legal and ethical obligations of the primary industries worker

- difference between an act, regulation, code of practice, by-law and standard (Australian, industry and workplace)

- purpose and intent of legislative requirements relevant to primary industries and a particular sector

- application of legislative requirements to a primary industries workplace and job role

- meaning of quality assurance and an overview of the role of employees

- purpose of occupational licensing and examples of licensing for primary industries and their requirements

- consequences of failure to observe (non-compliance) legislative requirements, quality assurance processes and workplace policy, guidelines and procedures

- connection between quality assurance and work practices

employment

- career pathways across primary industries and the knowledge and skills required for different job roles

- types of employment in primary industries:
  - full-time
  - part-time
  - casual
  - contract

- the difference between an award, agreement and contract and how they apply to workers in primary industries

- investigate the employment terms and conditions for a primary industries job role

- working knowledge of employer and employee rights and responsibilities in relation to employment

- purpose and value of a code of conduct for the primary industries worker and the industry

- principles of equal employment opportunity (EEO)

- primary role/function(s) of a range of key industry bodies for both employers and employees:
  - employer and employee groups
  - industry groups
  - unions
  - training

primary industries worker

- primary industries worker:
  - personal attributes and work ethic valued by the industry
  - interpersonal skills beneficial to an individual working in a primary industries workplace
  - importance of personal presentation and standards of hygiene
  - presentation standards for a primary industries workplace and job role
  - behaviour to support a safe and sustainable primary industries work environment

- how personal values, opinions and ethics can affect everyday work

- duties and responsibilities:
  - for a job role within primary industries
  - relationship between an individual worker and the team/work group
  - differences between individual and workplace goals and plans

- feedback:
  - value of feedback to an individual worker, the workplace and the industry
  - types of feedback:
    - personal reflection
    - formal and informal
    - direct and indirect
  - strategies for obtaining and interpreting feedback from supervisor(s), colleagues and clients
  - dealing with positive feedback and negative feedback
  - responsibility of a worker to use personal reflection, seek and provide feedback and improve

work practices

- an understanding that work practices and experiences differ between workplaces

- appreciate the value of work standards

- work standards for primary industries, and a primary industries workplace and job role

- implications of non-compliance to work standards

- effect of poor work practices on colleagues, the workplace and the industry

- access and use a range of sources containing information relating to work responsibilities (work instructions)

- strategies for understanding and clarifying work instructions

- a range of opportunities to read, interpret and follow instructions for a range of work tasks of varying degrees of difficulty

work practices cont/d

- difference between time management and task management

- time management and task management:
  – principles
  – techniques
  – prioritising
  – constraints

- work sequencing (task management):
  – receiving instruction
  – organising for the task
  – carry out the task
  – clean up after task completion

- application of time and task management techniques to work tasks/activities in a primary industries workplace

- recording and reporting in primary industries:
  – workplace policy and procedures applying to record-keeping and reporting
  – lines of communication and reporting typical of a primary industries workplace

technology

- current and emerging technologies in primary industries and workplace

- effect of current and emerging technology on operational duties

- role of current and emerging technology in development of new and improved work practices

- selection and use of technology appropriate to day-to-day work activities and work tasks in primary industries

working with others

- importance of developing collegial work relationships

- communication in the workplace with colleagues and others:
  – communication process/cycle
  – workplace examples of types of communication:
  – communication and strategies to overcome them
    • verbal
    • non-verbal
    • written
  – effective verbal, non-verbal and written communication
  – effective questioning and listening techniques
  – barriers to effective

working with others cont/d

- importance of teamwork when working in the primary industries workplace:
  - meaning of 'team' and 'teamwork'
  - characteristics of effective teamwork
  - benefits of teamwork to the primary industries workplace
  - examples of teams or work groups in a primary industries workplace and their area(s) of responsibility

- supporting others to achieve team/work group goals and tasks

- delivering quality work outcomes through teamwork and work groups

cultural diversity

- concepts of cultural diversity, cultural awareness and inclusiveness

- workplace diversity:
  - benefits
  - need for tolerance in the workplace
  - importance of respect and sensitivity
  - proactive strategies for promoting workplace diversity and accommodating individual differences
  - culturally appropriate work practices
  - effective cross-cultural communication skills

anti-discrimination

- bullying and harassment in the workplace:
  - indirect
  - direct
  - types:
    - verbal
    - physical
    - psychological
    - sexual

- principles of anti-discrimination

- intent of anti-discrimination legislation

- rights and responsibilities of employers and employees in relation to anti-discrimination

- workplace policy and procedures relating to anti-discrimination

- strategies to eliminate bias and harassment in the workplace

- consequences, including legal ramifications, of discriminatory workplace behaviour

- recourse available to individuals in the event of inappropriate workplace behaviour

misunderstandings and conflict

- the difference between being passive, aggressive and assertive

- causes of misunderstandings and conflict when working with others

- the extent to which conflict can be a positive or negative experience

- conflict management:
  - conflict-resolution techniques
  - different approaches to conflict management, including problem-solving, negotiation and mediation
  - workplace policy and procedures regarding management of conflict

- identify own response to misunderstandings and conflict and evaluate personal approach to management and resolution of conflict

- identify when it is appropriate to seek assistance when misunderstandings or conflict arise and whose assistance should be sought when conflict escalates

3.6   Livestock health and welfare – stream focus area

3.6.1   Outcomes

The student:

- explains principles and techniques for monitoring and maintaining the health and welfare of livestock
- applies knowledge of animal health and welfare to the handling and treatment of livestock.

3.6.2   Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either
- AHCLSK202   Care for health and welfare of livestock

or
- AHCLSK309   Implement animal health control programs

The application and elements for each of these units of competency are provided below.

AHCLSK202   Care for health and welfare of livestock

Application   This unit of competency describes the skills and knowledge required to care for the health and welfare of livestock.

Elements   1.   Prepare to work
              2.   Monitor and assess livestock health and welfare
              3.   Implement livestock health and welfare procedures
              4.   Administer drenches, vaccines and prescribed treatments to livestock
              5.   Monitor treated livestock and maintain records
              6.   Complete work.

Assessment requirements for AHCLSK202 Care for health and welfare of livestock are detailed in the Training Package.

AHCLSK309   Implement animal health control programs

Application   This unit of competency describes the skills and knowledge required to implement animal health control programs.

Elements   1.   Assess animal health status and treatment options
              2.   Prepare for treatment of animals
              3.   Treat animals
              4.   Complete treatment process.

Assessment requirements for AHCLSK309 Implement animal health control programs are detailed in the Training Package.

3.6.3 Scope of learning for the HSC

The scope of learning for the HSC should be addressed in the context of at least one relevant type of livestock used in primary industries.

identification
- broad knowledge of classification methods used to identify livestock: - breed   - production type   - identification system   - methods and techniques to identify livestock   - purpose and importance of accurate livestock identification
working with livestock
- understanding the responsibility of the primary industries workplace and its employees to maintain a duty of care towards livestock   - requirements when working with livestock: - legislation and regulations   - industry codes of practice   - workplace policy and procedures   - animal welfare guidelines including: - legislative   - ethical   - industry/sector specific   - workplace   and their application   - importance of safe work practices when working with livestock: - livestock   - handlers   - quarantine and biosecurity issues and their management: - hygiene procedures   - biosecurity procedures   - minimising disease introduction to: - humans   - livestock   - environment   - safe and hygienic procedure for dealing with animal residue and waste in an environmentally correct manner: - clean up   - disposal

working with livestock cont/d

- animal welfare emergency procedures

- reporting and recording requirements in relation to animal health and welfare:
  - ill health/disease incidence
  - livestock losses
  - treatment
  - handling records

behaviour

- importance of observing livestock behaviour when undertaking work tasks

- behavioural characteristics of livestock:
  - normal
  - abnormal
  - changed

- common signs of fear and aggression in livestock and appropriate responses to these behaviours

handling

- principles and procedures for handling livestock:
  - reducing stress and discomfort
  - minimising risk to livestock, self and others

- techniques and methods used to handle livestock:
  - move
  - draft
  - control
  - inspect
  - restrain

nutrition

- an understanding of the relationship between livestock health and nutrition

- livestock diet and nutritional requirements

- feeding of livestock:
  - systems:
    - intensive
    - extensive
  - elements:
    - types of feed
    - feed supplements

nutrition cont/d

- water:
  - supply
  - quantity
  - quality
- safe feed supply:
  - hygiene
  - toxic/noxious plants
  - contaminants

health

- recognise and assess livestock condition:
  - normal
  - abnormal
  - injuries

- ill health in livestock:
  - common diseases and disorders:
    - signs and symptoms
    - mode of transmission
  - parasite infestations:
    - signs and symptoms
    - severity
    - resistance
  - testing procedures
  - prevention and treatment strategies
  - euthanasia procedures

- health status of livestock:
  - assess:
    - physiological
    - health
  - issues identified
  - monitor:
    - regular checks
    - post-treatment

treatment

- workplace procedures for dealing with sick and dead livestock

- common treatment procedures to maintain livestock health and welfare:
  - types of treatments:
    - drenches
    - vaccines:
      - program
      - mode of action

treatment cont/d

- prescribed medicines
– treatment site and facilities
– equipment and materials used in the treatment of livestock:
  - name and general features
  - selection:
    o correct for task
    o manufacturers' specifications for use
  - use/application:
    o calibration
    o dosage/rates according to label
    o legislative requirements
  - safe disposal
  - cleaning
  - maintenance:
    o faults and malfunctions
    o reporting and recording
  - storage
– preparation for treatments
– administering and monitoring treatments
– withholding periods for treated livestock:
  - compliance
  - isolation
  - monitoring

3.7 Plant pests, diseases and disorders – stream focus area

3.7.1 Outcomes

The student:

- demonstrates an understanding of plant characteristics and features to enable recognition of plant pests, diseases and disorders
- explores the processes for treating plant pests, diseases and disorders
- analyses the impact of plant pests, diseases and disorders and their treatment and control.

3.7.2 Associated unit of competency

The scope of learning for the HSC must be read and delivered in conjunction with the following associated unit of competency:

either

- AHCPMG202   Treat plant pests, diseases and disorders

or

- AHCPMG302   Control plant pests, diseases and disorders

The application and elements for each of these units of competency are provided below.

AHCPMG202   Treat plant pests, diseases and disorders

Application   This unit of competency describes the skills and knowledge required to treat plant pests, diseases and disorders.

Elements   1.   Prepare to treat plant pests, diseases and disorders
               2.   Apply treatments to plant pests, diseases and disorders
               3.   Carry out post treatment operation.

Assessment requirements for AHCPMG202 Treat plant pests, diseases and disorders are detailed in the Training Package.

AHCPMG302   Control plant pests, diseases and disorders

Application   This unit of competency describes the skills and knowledge required to control plant pests, diseases and disorders, taking into consideration Integrated Pest Management options. The unit describes the skills and knowledge required to identify a range of pests, diseases and disorders and beneficial organisms, assess damage or threat to plants and select and apply pest and disease controls and timing of operations. It includes preparing and calibrating equipment, monitoring the effectiveness of controls and keeping records.

Elements   1.   Assess pests and disease infestation
               2.   Plan the implementation of management measures
               3.   Implement management measures
               4.   Monitor management methods.

Assessment requirements for AHCPMG302 Control plant pests, diseases and disorders are detailed in the Training Package.

3.7.3 Scope of learning for the HSC

The scope of learning for the HSC should be addressed in the context of significant plant pests, diseases and disorders for a particular workplace/situation in primary industries.

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range of plants

- range of plants common to a sector of primary industries:
    - types:
        - native
        - introduced
        - beneficial
        - weeds
    - common name
    - characteristics and features:
        - parts:
            - stems
            - roots
            - leaves
            - flowers
            - fruit
    - growth characteristics

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recognition of plant pests, diseases and disorders

- difference between a plant pest, disease and disorder

- for a range of significant plant pests, diseases and disorders:
    - common name
    - identification and assessment:
        - signs and symptoms
        - level of infestation
    - tolerable levels

- potential impact of plant pests, diseases and disorders within primary industries:
    - threat
    - damage

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management

- difference between treatment and control measures

- importance of safe work practices in the treatment and control of plant pests, diseases and disorders

- methods for the treatment and control of plant pests, diseases and disorders:
    - biological
    - chemical
    - cultural
    - mechanical
    - physical

management cont/d

- treatment of plant pests, diseases and disorders:
  - types
  - preparation:
    - including consequences of incorrect preparation
  - methods of application:
    - including the importance of minimising non-target damage
  - post-treatment operations:
    - clean-up
  - waste disposal

- appropriate selection of treatment for significant plant pests, diseases and disorders for a particular workplace/situation

- principles and strategies for control of plant pests, diseases and disorders

- appropriate selection of control measures for significant plant pests, diseases and disorders for a particular workplace/situation

- range of equipment used in the treatment and control of plant pests, diseases and disorders:
  - name and general features
  - selection:
    - correct for task
    - manufacturers' specification for use
  - use/application:
    - calibration
    - legislative requirements
  - cleaning, maintenance and storage

- assess the environmental impact of the treatment and control of plant pests, diseases and disorders and recommend measures to minimise the impact

- requirements applying to the treatment and control of plant pests, diseases and disorders:
  - legislation and regulations
  - industry codes of practice
  - workplace policy and procedures, including biosecurity

recording and reporting

- recording and reporting related to treatment and control of plant pests, diseases and disorders:
  - occurrence
  - treatment
  - monitoring
  - records

4   HSC examination

The Primary Industries Curriculum Framework includes an HSC examination which provides the opportunity for students to have this HSC examination mark contribute to the calculation of their Australian Tertiary Admission Rank (ATAR).

The Primary Industries HSC examination can contribute up to two units towards the calculation of a student's ATAR.

Students who have completed the Primary Industries (240 indicative hours) course are eligible to sit for the Primary Industries HSC examination.

Students who want to sit for the Primary Industries HSC examination must be entered for both the Primary Industries (240 indicative hours) course and the Primary Industries examination on Schools Online.

For the HSC examination specifications, which describe the format of the external HSC examination, see *Assessment and Reporting in Primary Industries Stage 6.*

The HSC examination is independent of the competency-based assessment undertaken during the course and has no impact on student eligibility for AQF VET qualifications.

4.1   Examinable outcomes and content

The HSC examination in Primary Industries is based on the HSC Content (focus areas) in this Framework.

The HSC Content is detailed in Section 3 of this Syllabus.

4.2   Relationship of the Primary Industries (240 indicative hours) course structure to the HSC examination

For a description of the relationship between the Primary Industries (240 indicative hours) course structure, the HSC Content and the HSC examination see *Assessment and Reporting in Primary Industries Stage 6*.

5   Other important information

5.1   Exclusions

Where there is significant overlap between an HSC VET course and other HSC VET or general education courses, NESA has an exclusion between the courses. Exclusions are generally applied at a course level rather than at the unit of competency level.

Students can only undertake the Primary Industries (120 indicative hours) course or the Primary Industries (240 indicative hours) course.

Schools should check all course exclusions when determining an appropriate pattern of study for their students.

Schools should check all course exclusions when determining an appropriate pattern of study for their students.

5.2   Recognition of Prior Learning (RPL) and credit transfer within VET courses

Students who have current knowledge, skills or experience relevant to a VET course may be granted credit towards the course requirements.

Find out more about arrangements for RPL and credit transfer within VET courses, including processes, application form and examples of possible scenarios.

5.3   School-based apprentices and trainees

Read information about provision for school-based trainees within the HSC.

Information on requirements and arrangements for NSW school-based traineeships is available on the Training Services NSW website.

5.4   Students with special education needs

Students with special education needs may access a VET course in one of two ways:

- by undertaking the course under regular course arrangements, or
- by undertaking selected units of competency within the course that have been identified through the collaborative curriculum planning process.

For more information see VET courses and students with special education needs and collaborative curriculum planning advice.

5.5   Access by students in Years 9 and 10 (Stage 5)

In certain circumstances students in Years 9 and 10 (Stage 5) may access Stage 6 VET courses. Further information is available in the Stage 5 VET section.

6 Glossary

AQF **Australian Qualifications Framework**

The AQF is the policy framework that defines all qualifications recognised nationally in post-compulsory education and training in Australia. The AQF comprises titles and guidelines that define each qualification, as well as the principles and protocols covering cross-sectoral qualification links and the issuing of qualifications and statements of attainment.

Australian Apprenticeships   Australian Apprenticeships encompass all apprenticeships and traineeships. They combine time at work with training and can be full-time, part-time or school-based.

www.australianapprenticeships.gov.au

competency The broad concept of industry competency concerns the ability to perform particular tasks and duties to the standard of performance expected in the workplace. Competency requires the application of specified skills, knowledge and attitudes relevant to effective participation in an industry, industry sector or enterprise.

core units of competency   Units of competency required by the Training Package to be eligible for an AQF VET qualification.

elements of competency   The basic building blocks of a unit of competency which describe the key activities or elements of the work covered by the unit.

focus areas HSC Content is organised into focus areas. HSC Content prescribes the scope of learning for the HSC.

mandatory units of competency   Units of competency that must be studied for an HSC VET course.

recognition of prior learning (RPL)   The result of an assessment of an individual's non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes, competency outcomes, or standards for entry to, and/or partial or total completion of, a qualification.

RTO **Registered Training Organisation**

A training organisation registered by a registering body in accordance with the VET Quality Framework, within a defined scope of registration (include TAFE NSW, private providers and school system RTOs).

scope of registration   The particular services and products an RTO is registered to provide. The RTO's scope defines the specific AQF VET qualifications, units of competency and accredited courses it is registered to provide, and whether it is registered to provide:

- both training delivery and assessment services, and to issue the relevant AQF VET qualifications and statements of attainment, or
- only assessment services, and to issue the relevant AQF VET qualifications and statements of attainment.

Stage 5	In NSW, Stage 5 relates to Years 9 and 10 of schooling.
Stage 6	In NSW, Stage 6 relates to Years 11 and 12 of schooling.
Statement of Attainment	May be issued in the vocational education and training sector by an RTO when an individual has completed one or more units of competency from nationally recognised qualification(s)/course(s).
training.gov.au	**http://training.gov.au** The national register for recording information about RTOs, Training Packages and accredited courses.
Training Package	A nationally endorsed, integrated set of competency standards, assessment guidelines and AQF VET qualifications for a specific industry, industry sector or enterprise.
training plan	A documented program of training and assessment required for an apprenticeship/traineeship training contract. It is developed by an RTO in consultation with the parties to the contract as the basis for training and assessing a person undertaking an apprenticeship or traineeship.
unit of competency	Specification of industry knowledge and skill and the application of that knowledge and skill to the standard of performance expected in the workplace.
VET	**Vocational Education and Training**
VET qualification	Formal certification in the VET sector by an RTO that a person has satisfied all requirements of the units of competency or modules that comprise an AQF VET qualification, as specified by: ▪ a nationally endorsed Training Package, or ▪ an accredited course that provides training for the qualification.
VET Quality Framework	The VET Quality Framework comprises: ▪ the Standards for Registered Training Organisations ▪ the Fit and Proper Person Requirements ▪ the Financial Viability Risk Assessment Requirements ▪ the Data Provision Requirements, and ▪ the Australian Qualifications Framework.