**COURSE ABA3401: WORKPLACE SKILLS** 

Level: First Period Apprenticeship

**Prerequisite:** ABA3900: Apprenticeship Safety

**Description:** Students develop workplace coaching, estimating and communication skills

relevant to the auto body technician trade.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resources:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

1. display coaching skills

1.1 describe coaching skills used for training apprentices

## 2. describe estimates and repair orders and develop a work plan

- 2.1 describe the requirements of an estimate
- 2.2 explain estimates and repair orders, including:
  - 2.2.1 estimates as selling tools
  - 2.2.2 estimates as negotiating tools
  - 2.2.3 estimate terms and abbreviations
  - 2.2.4 all sections of a repair order
- 2.3 explain the use of original equipment manufacturer (OEM) service information
- 2.4 explain the use of aftermarket service information
- 2.5 develop a work plan

#### 3. communicate with all parties involved

- 3.1 practice professional verbal and nonverbal communication between trade related contacts
- 3.2 interpret standard operating procedures

## 4. demonstrate basic competencies

- 4.1 demonstrate fundamental skills to:
  - 4 1 1 communicate
  - 4.1.2 manage information
  - 4.1.3 use numbers
  - 4.1.4 think and solve problems
- 4.2 demonstrate personal management skills to:
  - demonstrate positive attitudes and behaviours 4.2.1
  - 4.2.2 be responsible
  - 4.2.3 be adaptable
  - 4.2.4 learn continuously
  - 4.2.5 work safely
- 4.3 demonstrate teamwork skills to:
  - 4.3.1 work with others
  - 4.3.2 participate in projects and tasks

Advanced CTS, TMT: ABA3401 / 1 © Alberta Education, Alberta, Canada Revised 2017

- 5. create a transitional strategy to accommodate personal changes and build personal values
   5.1 identify short-term and long-term goals
   5.2 identify steps to achieve goals

2 / CTS, TMT: ABA3401 Advanced Revised 2017 © Alberta Education, Alberta, Canada **COURSE ABA3402: TOOLS, BATTERIES & DETAILING** 

Level: First Period Apprenticeship

**Prerequisite:** ABA3401: Workplace Skills

**Description:** Students develop an understanding of hand and power tools, battery

charging and boosting and vehicle detailing.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resources:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

## 1. use auto body tools and equipment

- 1.1 identify hand tools, including:
  - 1.1.1 wrenches
  - 1.1.2 sockets, extensions and universal joints
  - 1.1.3
  - 1.1.4 screwdrivers
  - 1.1.5 hammers
  - 1.1.6 body spoons, picks and pry bars
  - 1.1.7 pop riveters
  - 1.1.8 cutting tools
  - 1.1.9 trim removal tools
  - 1.1.10 sanding tools
  - 1.1.11 measuring tools
  - 1.1.12 pullers and jacks
  - 1.1.13 torque wrenches
- 1.2 identify power tools, including:
  - electric tools 1.2.1
  - 1.2.2 pneumatic tools
  - 1.2.3 hydraulic tools
- 1.3 identify equipment

#### 2. service batteries

- 2.1 identify battery types
- 2.2 describe battery function, including:
  - 2.2.1 purpose
  - construction 2.2.2
  - 2.2.3 operation
  - 2.2.4 safety
- 2.3 describe battery charging, including:
  - 2.3.1 charging procedures
  - 2.3.2 types of chargers

Advanced CTS, TMT: ABA3402 / 1 Revised 2017

- 2.4 describe battery boosting, including:
  - 2.4.1 preparation
  - 2.4.2 connections and procedure
  - 2.4.3 disconnecting

#### 3. perform final detail

- 3.1 describe detailing procedures
- 3.2 describe types of decals and striping
- 3.3 describe removal of decals and striping
- 3.4 describe installation of decals and striping
- 3.5 clean interior of vehicle
- 3.6 clean exterior of vehicle

#### 4. demonstrate basic competencies

- 4.1 demonstrate fundamental skills to:
  - 4.1.1 communicate
  - 4.1.2 manage information
  - 4.1.3 use numbers
  - 4.1.4 think and solve problems
- 4.2 demonstrate personal management skills to:
  - 4.2.1 demonstrate positive attitudes and behaviours
  - 4.2.2 be responsible
  - 4.2.3 be adaptable
  - 4.2.4 learn continuously
  - 4.2.5 work safely
- 4.3 demonstrate teamwork skills to:
  - 4.3.1 work with others
  - 4.3.2 participate in projects and tasks
- 5. create a transitional strategy to accommodate personal changes and build personal values
  - 5.1 identify short-term and long-term goals
  - 5.2 identify steps to achieve goals

2 / CTS, TMT: ABA3402 Advanced
Revised 2017 © Alberta Education, Alberta, Canada

**COURSE ABA3405: REMOVAL & INSTALLATION 1** 

Level: First Period Apprenticeship

**Prerequisites:** ABA3402: Tools, Batteries & Detailing

**Description:** Students develop an understanding of non-structural body components for

removal and installation.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

ILM Resource: Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

#### 1. identify and describe non-structural components

- 1.1 identify types of body components
- 1.2 identify the purpose of trim, including:
  - 1.2.1 protection
  - 1.2.2 appearance
  - 1.2.3 function
- 1.3 identify restraint systems, including:
  - 1.3.1 passive restraint system codes; e.g., Supplemental Restraint System (SRS), Supplemental Inflatable Restraint (SIR), Air Cushion Restraint System (ACRS)
  - supplemental restraint components; e.g., controllers, sensors, wiring harness, air bag 1.3.2 module
  - 1.3.3 safety concerns of restraint systems
- 1.4 describe methods of fastening; e.g., adhesives, bolts, screws, rivets, clips, speed nuts
- 1.5 assess components for hidden damage
- 1.6 describe component storage procedures

## 2. demonstrate basic competencies

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - 2.1.4 think and solve problems
- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - be adaptable 2.2.3
  - 2.2.4 learn continuously
  - 2.2.5 work safely
- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks

Advanced CTS, TMT: ABA3405 / 1 Revised 2017

- 3. create a transitional strategy to accommodate personal changes and build personal values3.1 identify short-term and long-term goals3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3405 Revised 2017

**COURSE ABA3406: REMOVAL & INSTALLATION 2** 

Level: First Period Apprenticeship

**Prerequisite:** ABA3402: Tools, Batteries & Detailing

**Description:** Students demonstrate procedures for the removal and installation of

non-structural body components.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resources:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

The student will: **Outcomes:** 

#### 1. install non-structural body components

- 1.1 remove bolt on components, considering:
  - 1.1.1 removal procedures
  - 1.1.2 attachment methods
  - 1.1.3 safety
- 1.2 describe body panel alignment of bolt on components, including:
  - standard uniform fit 1.2.1
  - 1.2.2 flush/shingle effect
  - 1.2.3 manufacturer tolerances
- 1.3 describe a headlight alignment procedure
- 1.4 describe a leak test procedure
- 1.5 install bolt on components

#### 2. demonstrate basic competencies

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - think and solve problems 2.1.4
- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - be adaptable 2.2.3
  - 2.2.4 learn continuously
  - 2.2.5 work safely
- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks
- 3. create a transitional strategy to accommodate personal changes and build personal values
  - 3.1 identify short-term and long-term goals
  - 3.2 identify steps to achieve goals

Advanced CTS, TMT: ABA3406 / 1 Revised 2017 **COURSE ABA3410: SUBSTRATES** 

First Period Apprenticeship Level:

**Prerequisites:** ABA3406: Removal & Installation 2

**Description:** Students identify and develop an understanding of types of paint finishes.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resource:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

#### 1. identify types of paint finishes

- 1.1 identify substrates, including:
  - 1.1.1 coated and non-coated steel
  - 1.1.2 aluminum
  - 1.1.3 hybrid plastics
  - 1.1.4 fibre-reinforced plastics (FRP)
- 1.2 identify condition of substrate, including:
  - 1.2.1 chalking
  - 1.2.2 peeling
  - 1.2.3 cracking
  - 1.2.4 microchecking
  - 1.2.5 blistering
  - 1.2.6 rusting
  - 1.2.7 adhesion
- 1.3 describe substrate preparation methods, including:
  - cleaning of repair area 1.3.1
  - locating and noting damage 1.3.2
  - 1.3.3 prepping area for filler
  - 1.3.4 sanding
  - 1.3.5 cleaning and masking
  - 1.3.6 application of undercoat
  - 1.3.7 block sanding primed area
  - cleaning and masking for topcoats 1.3.8

Advanced CTS, TMT: ABA3410 / 1 Revised 2017

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - 2.1.4 think and solve problems
- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - 2.2.3 be adaptable
  - 2.2.4 learn continuously
  - 2.2.5 work safely
- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks

## 3. create a transitional strategy to accommodate personal changes and build personal values

- 3.1 identify short-term and long-term goals
- 3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3410 Advanced
Revised 2017 © Alberta Education, Alberta, Canada

**COURSE ABA3415: FILLERS** 

First Period Apprenticeship Level:

**Prerequisites:** ABA3410: Substrates

**Description:** Students use fillers to repair minor imperfections.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resource:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

#### 1. apply fillers

- 1.1 describe surface preparation for filler, including:
  - 1.1.1 metal preparation
  - aluminum preparation 1.1.2
  - composite preparation 1.1.3
  - sheet metal contractor preparation 1.1.4
- 1.2 apply fillers, demonstrating:
  - 1.2.1 surface preparation
  - 1.2.2 mixing
  - 1.2.3 application methods
- 1.3 perform sanding of fillers, demonstrating:
  - sanding block selection 1.3.1
  - 1.3.2 grit selection
  - 1.3.3 stage-sanding process dependent upon filler type
  - levelling techniques 1.3.4
  - 1.3.5 finish sanding

## 2. demonstrate basic competencies

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
- think and solve problems 2.2 2.1.4
- 2.3 demonstrate personal management skills to:
  - demonstrate positive attitudes and behaviours 2.2.1
  - 2.2.2 be responsible
  - 2.3.3 be adaptable
  - 2.3.4 learn continuously
  - work safely 2.3.5
- 2.4 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - participate in projects and tasks 2.3.2

Advanced CTS, TMT: ABA3415 / 1 Revised 2017

- 3. create a transitional strategy to accommodate personal changes and build personal values3.1 identify short-term and long-term goals3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3415 Revised 2017

**COURSE ABA3420: SURFACE PREPARATION** 

Level: First Period Apprenticeship

**Prerequisites:** ABA3415: Fillers

**Description:** Students prepare surfaces and perform sanding appropriate for undercoats

and topcoats.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> iourneyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resource:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

## 1. prepare surface for coatings

- 1.1 describe undercoat preparation methods, including:
  - composite sanding 1.1.1
  - block sanding 1.1.2
  - hand sanding; e.g., back sanding, scuff sanding, folding paper 1.1.3
- 1.2 perform sanding for undercoats, considering:
  - scratch patterns; e.g., circular, elliptical, straight line 1.2.1
  - 1.2.2 sanding methods; e.g., dual action, featheredging, interface pad, circular
- 1.3 describe topcoat preparation methods, including:
  - 1.3.1 setup
  - 1.3.2 sanding
  - 1.3.3 cleaning
  - 1.3.4 sanding-throughs
  - 1.3.5 over and under sanding
  - 1.3.6 finger sanding
  - 1.3.7 final inspection
- 1.4 perform sanding for topcoats, including:
  - preparing a substrate for topcoat; e.g., guide coats, sanding paste, blending 1.4.1
  - final cleaning; e.g., final wash, blowing, tacking 1.4.2

# 2. demonstrate basic competencies

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - 2.1.4 think and solve problems

Advanced CTS, TMT: ABA3420 / 1 Revised 2017

- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - 2.2.3 be adaptable
  - 2.2.4 learn continuously
  - 2.2.5 work safely
- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks
- 3. create a transitional strategy to accommodate personal changes and build personal values
  - 3.1 identify short-term and long-term goals
  - 3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3420 Advanced
Revised 2017 © Alberta Education, Alberta, Canada

**COURSE ABA3425: MASKING** 

Level: First Period Apprenticeship

**Prerequisites:** ABA3420: Surface Preparation

**Description:** Students develop an understanding of masking for an undercoat and topcoat

application.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> iourneyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resource:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

#### 1. mask a vehicle

- 1.1 describe methods and materials used for masking, including:
  - 1.1.1 crepe paper
  - 1.1.2 polypropylene tape
  - 1.1.3 vinyl tape
  - 1.1.4 duct tape
  - 1.1.5 coated and non-coated masking paper
  - 1.1.6 plastic sheeting
  - 1.1.7 overspray masking liquid
  - 1.1.8 hard-edge trim masking tape
  - 1.1.9 trim lifting cord
  - 1.1.10 wheel covers
- 1.2 mask a repair area for an undercoat application
- 1.3 mask a repair area for a topcoat application, including:
  - 1.3.1 general masking
  - 1.3.2 masking tape application
  - 1.3.3 back masking
  - 1.3.4 reverse masking
  - 1.3.5 masking removal methods

#### 2. demonstrate basic competencies

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - 2.1.4 think and solve problems
- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - 2.2.3 be adaptable
  - 2.2.4 learn continuously
  - 2.2.5 work safely

- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks
- 3. create a transitional strategy to accommodate personal changes and build personal values
  - 3.1 identify short-term and long-term goals
  - 3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3425 Advanced Revised 2017 © Alberta Education, Alberta, Canada

**COURSE ABA3430: UNDERCOATING** 

Level: First Period Apprenticeship

**Prerequisites:** ABA3425: Masking

**Description:** Students develop an understanding of undercoat preparation and application.

**Parameters:** Access to a materials work centre and to instruction from an individual with

> journeyperson certification as an auto body technician or an individual with certification in the auto body prepper, auto body repairer, or auto body

refinisher trades.

**ILM Resource:** Individual Learning Modules (ILM) have been developed for this

apprenticeship area by Advanced Education. The ILMs are available for

teachers and students on LearnAlberta.

**Outcomes:** The student will:

#### 1. apply undercoats

- 1.1 describe undercoats; e.g., primers, sealers, corrosion protection
- 1.2 prepare undercoat materials, including:
  - 1.2.1 metal etching primer (wash primer)
  - epoxy primers 1.2.2
  - 1.2.3 primer surfacer
  - 1.2.4 hardener additives
  - 1.2.5 solvents
  - 1.2.6 accelerators
  - 1.2.7 flex additives
  - 1.2.8 adhesion promoter
- 1.3 perform operating procedures for refinishing equipment, including:
  - suction, siphon feed and gravity feed primer guns 1.3.1
  - high-volume low-pressure (HVLP) and conventional spray guns 1.3.2
  - 1.3.3 flood tests
  - 1.3.4 spray pattern tests
- 1.4 perform maintenance procedures for refinishing equipment, including:
  - 1.4.1 hand-cleaning spray guns
  - 1.4.2 using a spray gun washer
- 1.5 apply undercoats, considering:
  - 1.5.1 perpendicular to the surface
  - perpendicular to the line of travel 1.5.2
  - 1.5.3 gun arcing
  - triggering techniques 1.5.4
  - 1.5.5 feathering
  - 1.5.6 overlap
  - 1.5.7 gun heeling
  - 1.5.8 gun direction

Advanced CTS, TMT: ABA3430 / 1 Revised 2017

- 2.1 demonstrate fundamental skills to:
  - 2.1.1 communicate
  - 2.1.2 manage information
  - 2.1.3 use numbers
  - 2.1.4 think and solve problems
- 2.2 demonstrate personal management skills to:
  - 2.2.1 demonstrate positive attitudes and behaviours
  - 2.2.2 be responsible
  - 2.2.3 be adaptable
  - 2.2.4 learn continuously
  - 2.2.5 work safely
- 2.3 demonstrate teamwork skills to:
  - 2.3.1 work with others
  - 2.3.2 participate in projects and tasks

## 3. create a transitional strategy to accommodate personal changes and build personal values

- 3.1 identify short-term and long-term goals
- 3.2 identify steps to achieve goals

2 / CTS, TMT: ABA3430 Advanced
Revised 2017 © Alberta Education, Alberta, Canada

**COURSE ABA3435: ABA PRACTICUM A** 

Level: First Period Apprenticeship

**Prerequisite:** None

**Description:** Students, on the work site, continue to develop and refine those

competencies developed in related Career and Technology Studies (CTS)

occupational areas, previous practicums and other experiences.

This course should be accessed only by students continuing to work toward **Parameters:** 

> attaining a recognized credential offered by an agency external to the school. Practicum courses extend the competencies developed in related CTS occupational areas. The practicum courses may not be delivered as stand-alone courses and may not be combined with core courses. This course may not be used in conjunction with Registered Apprenticeship Program courses. This practicum course may be delivered on- or off-campus. Instruction must be delivered by a qualified teacher with journeyperson certification or an experienced professional with

journeyperson certification, who is under the supervision of the qualified teacher; both must be authorized to supervise trainees for the external

credential

The student will: **Outcomes:** 

## 1. perform assigned tasks and responsibilities efficiently and effectively, as required by the agency granting credentials

- 1.1 identify regulations and regulatory bodies related to the credential
- 1.2 describe personal roles and responsibilities, including:
  - 1.2.1 key responsibilities
  - 1.2.2 support functions/responsibilities
  - 1.2.3 code of ethics
- 1.3 describe personal work responsibilities and categorize them as:
  - 1.3.1 routine tasks; e.g., daily, weekly, monthly, yearly
  - 1.3.2 non-routine tasks; e.g., emergencies
  - 1.3.3 tasks requiring personal judgement
  - 1.3.4 tasks requiring approval of a supervisor

## 2. analyze personal performance in relation to established standards

- 2.1 evaluate application of competencies developed in related CTS courses
- 2.2 evaluate standards of performance in terms of:
  - 2.2.1 quality of work
  - 2.2.2 quantity of work
- 2.3 evaluate adherence to workplace policies and procedures related to health and safety
- 2.4 evaluate the work environment in terms of:
  - 2.4.1 location
  - 2.4.2 floor plan of work area
  - 2.4.3 analysis of workflow patterns

Advanced CTS, TMT: ABA3435/1 Revised 2017

- 2.5 evaluate a professional in a related occupation in terms of:
  - 2.5.1 training and certification
  - 2.5.2 interpersonal skills
  - 2.5.3 technical skills
  - 2.5.4 professional ethics

- 3.1 demonstrate fundamental skills to:
  - 3.1.1 communicate
  - 3.1.2 manage information
  - 3.1.3 use numbers
  - 3.1.4 think and solve problems
- 3.2 demonstrate personal management skills to:
  - 3.2.1 demonstrate positive attitudes and behaviours
  - 3.2.2 be responsible
  - 3.2.3 be adaptable
  - 3.2.4 learn continuously
  - 3.2.5 work safely
- 3.3 demonstrate teamwork skills to:
  - 3.3.1 work with others
  - 3.3.2 participate in projects and tasks

2 / CTS, TMT: ABA3435 Revised 2017 © Alberta Education, Alberta, Canada

Advanced

**COURSE ABA3440: ABA PRACTICUM B** 

Level: First Period Apprenticeship

**Prerequisite:** None

**Description:** Students, on the work site, continue to develop and refine those

competencies developed in related Career and Technology Studies (CTS)

occupational areas, previous practicums and other experiences.

This course should be accessed only by students continuing to work toward **Parameters:** 

> attaining a recognized credential offered by an agency external to the school. Practicum courses extend the competencies developed in related CTS occupational areas. The practicum courses may not be delivered as stand-alone courses and may not be combined with core courses. This course may not be used in conjunction with Registered Apprenticeship Program courses. This practicum course may be delivered on- or off-campus. Instruction must be delivered by a qualified teacher with journeyperson certification or an experienced professional with

> journeyperson certification, who is under the supervision of the qualified teacher; both must be authorized to supervise trainees for the external

credential.

**Outcomes:** The student will:

## 1. perform assigned tasks and responsibilities efficiently and effectively, as required by the agency granting credentials

- 1.1 identify regulations and regulatory bodies related to the credential
- 1.2 describe personal roles and responsibilities, including:
  - 1.2.1 key responsibilities
  - 1.2.2 support functions/responsibilities
  - 1.2.3 code of ethics
- 1.3 describe personal work responsibilities and categorize them as:
  - 1.3.1 routine tasks; e.g., daily, weekly, monthly, yearly
  - 1.3.2 non-routine tasks; e.g., emergencies
  - 1.3.3 tasks requiring personal judgement
  - 1.3.4 tasks requiring approval of a supervisor

#### 2. analyze personal performance in relation to established standards

- 2.1 evaluate application of competencies developed in related CTS courses
- 2.2 evaluate standards of performance in terms of:
  - 2.2.1 quality of work
  - 2.2.2 quantity of work
- 2.3 evaluate adherence to workplace policies and procedures related to health and safety
- 2.4 evaluate the work environment in terms of:
  - 2.4.1 location
  - 2.4.2 floor plan of work area
  - 2.4.3 analysis of workflow patterns

Advanced CTS, TMT: ABA3440/1 Revised 2017

- 2.5 evaluate a professional in a related occupation in terms of:
  - 2.5.1 training and certification
  - 2.5.2 interpersonal skills
  - 2.5.3 technical skills
  - 2.5.4 professional ethics

- 3.1 demonstrate fundamental skills to:
  - 3.1.1 communicate
  - 3.1.2 manage information
  - 3.1.3 use numbers
  - 3.1.4 think and solve problems
- 3.2 demonstrate personal management skills to:
  - 3.2.1 demonstrate positive attitudes and behaviours
  - 3.2.2 be responsible
  - 3.2.3 be adaptable
  - 3.2.4 learn continuously
  - 3.2.5 work safely
- 3.3 demonstrate teamwork skills to:
  - 3.3.1 work with others
  - 3.3.2 participate in projects and tasks

2 / CTS, TMT: ABA3440 Revised 2017 **COURSE ABA3445: ABA PRACTICUM C** 

Level: First Period Apprenticeship

**Prerequisite:** None

**Description:** Students, on the work site, continue to develop and refine those

competencies developed in related Career and Technology Studies (CTS)

occupational areas, previous practicums and other experiences.

This course should be accessed only by students continuing to work toward **Parameters:** 

> attaining a recognized credential offered by an agency external to the school. Practicum courses extend the competencies developed in related CTS occupational areas. The practicum courses may not be delivered as stand-alone courses and may not be combined with core courses. This course may not be used in conjunction with Registered Apprenticeship Program courses. This practicum course may be delivered on- or off-campus. Instruction must be delivered by a qualified teacher with journeyperson certification or an experienced professional with

> journeyperson certification, who is under the supervision of the qualified teacher; both must be authorized to supervise trainees for the external

credential.

**Outcomes:** The student will:

## 1. perform assigned tasks and responsibilities efficiently and effectively, as required by the agency granting credentials

- 1.1 identify regulations and regulatory bodies related to the credential
- 1.2 describe personal roles and responsibilities, including:
  - 1.2.1 key responsibilities
  - 1.2.2 support functions/responsibilities
  - 1.2.3 code of ethics
- 1.3 describe personal work responsibilities and categorize them as:
  - 1.3.1 routine tasks; e.g., daily, weekly, monthly, yearly
  - 1.3.2 non-routine tasks; e.g., emergencies
  - 1.3.3 tasks requiring personal judgement
  - 1.3.4 tasks requiring approval of a supervisor

#### 2. analyze personal performance in relation to established standards

- 2.1 evaluate application of competencies developed in related CTS courses
- 2.2 evaluate standards of performance in terms of:
  - 2.2.1 quality of work
  - 2.2.2 quantity of work
- 2.3 evaluate adherence to workplace policies and procedures related to health and safety
- 2.4 evaluate the work environment in terms of:
  - 2.4.1 location
  - 2.4.2 floor plan of work area
  - 2.4.3 analysis of workflow patterns

Advanced CTS, TMT: ABA3445/1 Revised 2017

- 2.5 evaluate a professional in a related occupation in terms of:
  - 2.5.1 training and certification
  - 2.5.2 interpersonal skills
  - 2.5.3 technical skills
  - 2.5.4 professional ethics

- 3.1 demonstrate fundamental skills to:
  - 3.1.1 communicate
  - 3.1.2 manage information
  - 3.1.3 use numbers
  - 3.1.4 think and solve problems
- 3.2 demonstrate personal management skills to:
  - 3.2.1 demonstrate positive attitudes and behaviours
  - 3.2.2 be responsible
  - 3.2.3 be adaptable
  - 3.2.4 learn continuously
  - 3.2.5 work safely
- 3.3 demonstrate teamwork skills to:
  - 3.3.1 work with others
  - 3.3.2 participate in projects and tasks

2 / CTS, TMT: ABA3445 Revised 2017 **COURSE ABA3450: ABA PRACTICUM D** 

Level: First Period Apprenticeship

**Prerequisite:** None

**Description:** Students, on the work site, continue to develop and refine those

competencies developed in related Career and Technology Studies (CTS)

occupational areas, previous practicums and other experiences.

This course should be accessed only by students continuing to work toward **Parameters:** 

> attaining a recognized credential offered by an agency external to the school. Practicum courses extend the competencies developed in related CTS occupational areas. The practicum courses may not be delivered as stand-alone courses and may not be combined with core courses. This course may not be used in conjunction with Registered Apprenticeship Program courses. This practicum course may be delivered on- or off-campus. Instruction must be delivered by a qualified teacher with journeyperson certification or an experienced professional with

journeyperson certification, who is under the supervision of the qualified teacher; both must be authorized to supervise trainees for the external

credential

The student will: **Outcomes:** 

## 1. perform assigned tasks and responsibilities efficiently and effectively, as required by the agency granting credentials

- 1.1 identify regulations and regulatory bodies related to the credential
- 1.2 describe personal roles and responsibilities, including:
  - 1.2.1 key responsibilities
  - 1.2.2 support functions/responsibilities
  - 1.2.3 code of ethics
- 1.3 describe personal work responsibilities and categorize them as:
  - 1.3.1 routine tasks; e.g., daily, weekly, monthly, yearly
  - 1.3.2 non-routine tasks; e.g., emergencies
  - 1.3.3 tasks requiring personal judgement
  - 1.3.4 tasks requiring approval of a supervisor

## 2. analyze personal performance in relation to established standards

- 2.1 evaluate application of competencies developed in related CTS courses
- 2.2 evaluate standards of performance in terms of:
  - 2.2.1 quality of work
  - 2.2.2 quantity of work
- 2.3 evaluate adherence to workplace policies and procedures related to health and safety
- 2.4 evaluate the work environment in terms of:
  - 2.4.1 location
  - 2.4.2 floor plan of work area
  - 2.4.3 analysis of workflow patterns

Advanced CTS, TMT: ABA3450/1 Revised 2017

- 2.5 evaluate a professional in a related occupation in terms of:
  - 2.5.1 training and certification
  - 2.5.2 interpersonal skills
  - 2.5.3 technical skills
  - 2.5.4 professional ethics

- 3.1 demonstrate fundamental skills to:
  - 3.1.1 communicate
  - 3.1.2 manage information
  - 3.1.3 use numbers
  - 3.1.4 think and solve problems
- 3.2 demonstrate personal management skills to:
  - 3.2.1 demonstrate positive attitudes and behaviours
  - 3.2.2 be responsible
  - 3.2.3 be adaptable
  - 3.2.4 learn continuously
  - 3.2.5 work safely
- 3.3 demonstrate teamwork skills to:
  - 3.3.1 work with others
  - 3.3.2 participate in projects and tasks

2 / CTS, TMT: ABA3450 Revised 2017

#### **COURSE ABA3900: APPRENTICESHIP SAFETY**

**Level:** First Period Apprenticeship

**Prerequisite:** None

**Description:** Students develop knowledge, skills and attitudes in the practice of workshop

health and safety, communication and career planning.

**Parameters:** Access to a materials work centre and to instruction from an individual with

specialized training in occupational health and safety (and understanding of the

auto body industry) and/or an auto body technician.

**ILM Resources:** Individual Learning Modules (ILM) have been developed for this apprenticeship

area by Advanced Education. The ILMs are available for teachers and students

by logging in to LearnAlberta.

**Note:** This course may promote discussions around sensitive topics (e.g., injury and

death) in the context of student safety with respect to workplace hazards.

**Outcomes:** The student will:

# 1. apply legislation, regulations and practices intended to ensure a safe workplace in the auto body technician apprenticeship trade

- 1.1 demonstrate the application of the *Occupational Health and Safety (OHS) Act*, *Regulation* and *Code*, as well as the changes from Bill C-45
- 1.2 explain the core requirements applicable to all industries, including:
  - 1.2.1 engineering controls
  - 1.2.2 administrative controls
  - 1.2.3 personal protective equipment (PPE)
- 1.3 demonstrate an understanding of the 26 parts of the OHS Code requirements applicable to all industries
- 1.4 demonstrate an understanding of the 12 parts of the OHS Code requirements applicable to specific industries and activities
- 1.5 demonstrate an understanding of the 11 OHS Code Schedules that the Explanation Guide does not address
- 1.6 explain the role of the employer and employee in regard to occupational health and safety legislation, considering:
  - 1.6.1 employer responsibilities (OHS Regulation)
  - 1.6.2 employee responsibilities (OHS Regulation)
  - 1.6.3 Workplace Hazardous Materials Information System (WHMIS)
  - 1.6.4 fire regulations
  - 1.6.5 Workers' Compensation Board (WCB)
  - 1.6.6 related advisory bodies and agencies; e.g., Occupational Health and Safety Council (OHSC), Work Safe Alberta, Safety Codes Council
- 1.7 explain industry practices for hazard assessment and control procedures in four main hazard categories, including:
  - 1.7.1 biological
  - 1.7.2 chemical

Advanced CTS, TMT: ABA3900 / 1

© Alberta Education, Alberta, Canada Revised 2017

- 1.7.3 ergonomic
- 1.7.4 physical hazards
- 1.8 identify and describe hazard assessment tools that both employees and employers must use in assessing and controlling work-site hazards, including:
  - 1.8.1 work-site hazard identification and assessment
  - 1.8.2 health and safety plan
  - 1.8.3 joint work-site health and safety committee
  - 1.8.4 emergency response plans
  - 1.8.5 first-aid and incident reports
- 1.9 identify and describe employer engineering controls that provide the highest level of worker protection, including:
  - 1.9.1 elimination
  - 1.9.2 substitution
  - 1.9.3 redesign
  - 1.9.4 isolation
  - 1.9.5 automation
- 1.10 identify and describe employer administrative controls that limit hazards to the lowest level possible, including:
  - 1.10.1 safe work practices
  - 1.10.2 job procedures, policies and rules
  - 1.10.3 work/rest schedules to reduce exposure
  - 1.10.4 limiting hours of work
  - 1.10.5 scheduling hazardous work during non-peak times
  - 1.10.6 using optional methods; e.g., wet sanding as opposed to dry sanding or sweeping
- 1.11 describe the responsibilities of employees and employers to apply emergency procedures, including:
  - 1.11.1 emergency response plans
  - 1.11.2 first aid
- 1.12 describe positive tradesperson attitudes with respect to legal responsibilities for all workers, including:
  - 1.12.1 housekeeping
  - 1.12.2 lighting
  - 1.12.3 personal protective equipment (PPE)
  - 1.12.4 emergency procedures
- 1.13 describe the roles and responsibilities of employers and employees with respect to the selection and use of personal protective equipment (PPE), including:
  - 1.13.1 eye protection; e.g., class 1 (spectacles), class 2 (goggles), class 3 (welding helmets), class 4 (welding hand shields), class 5 (hoods), class 6 (face shields), class 7 (respirator face pieces)
  - 1.13.2 flame resistant clothing
  - 1.13.3 foot protection; e.g., category 1, 2 or 3 footwear requirements
  - 1.13.4 head protection; e.g., class G (general), class E (electrical), class C (conducting)
  - 1.13.5 hearing protection; e.g., earplugs or earmuffs
  - 1.13.6 life jackets and personal flotation devices (PFDs)
  - 1.13.7 limb and body protection
  - 1.13.8 respiratory protective equipment; e.g., particulate filters; chemical cartridges or canisters; airline respirators, hoods, helmets and suits; self-contained breathing apparatus (SCBA)
  - 1.13.9 a combination of any of the above

- 1.13.10 maintain required PPE for tasks
- 1.13.11 use required PPE for tasks

# 2. use industry standard practices for climbing, lifting, rigging and hoisting in the auto body technician apprenticeship trade

- 2.1 select, use and maintain specialized PPE and materials for climbing, lifting and loading, including:
  - 2.1.1 full body harness
  - 2.1.2 body belt
  - 2.1.3 ladders
  - 2.1.4 scaffold systems
  - 2.1.5 lifting and moving equipment
  - 2.1.6 PPE for lifting
  - 2.1.7 materials handling equipment; e.g., forklift, four-wheel dolly, chain hoist, overhead crane
- 2.2 describe manual lifting procedures, including correct body mechanics, considering:
  - 2.2.1 back safety
  - 2.2.2 general procedure for lifting
  - 2.2.3 employer and employee preventive actions to avoid back injuries
- 2.3 describe rigging hardware and the safe work load associated with:
  - 2.3.1 wire rope slings
  - 2.3.2 synthetic fibre web slings
  - 2.3.3 chain slings
  - 2.3.4 rigging hardware inspection
- 2.4 select the correct equipment for rigging typical loads, including:
  - 2.4.1 eye bolts
  - 2.4.2 shackles
  - 2.4.3 rings and links
  - 2.4.4 hooks
  - 2.4.5 swivels
  - 2.4.6 spreader bars and equalization beams
  - 2.4.7 blocks
  - 2.4.8 sheaves
  - 2.4.9 turnbuckles
- 2.5 describe hoisting and load-moving procedures
- 2.6 explain the most commonly used sling configurations to connect a load to a hook, including:
  - 2.6.1 vertical hitch
  - 2.6.2 bridle hitch
  - 2.6.3 single and double basket hitch
  - 2.6.4 wrap hitch
  - 2.6.5 single and double choker hitch
- 2.7 demonstrate the standard movement signals a signaler is required to know to signal a crane operator, including:
  - 2.7.1 hoist and lower load
  - 2.7.2 raise and lower boom
  - 2.7.3 swing boom
  - 2.7.4 stop
  - 2.7.5 emergency stop
  - 2.7.6 dog everything

Advanced CTS, TMT: ABA3900 / 3 Revised 2017

## 3. apply industry standard safety practices for hazardous materials and fire protection in the auto body technician apprenticeship trade

- 3.1 describe the roles, responsibilities, features and practices related to the Workplace Hazardous Materials Information System (WHMIS) program, including:
  - 3.1.1 suppliers', employers' and employees' responsibilities
  - 3.1.2 WHMIS classifications
  - 3.1.3 health effects from exposure to chemicals
- 3.2 describe the three key elements of WHMIS, including:
  - 3.2.1 worker education
  - 3.2.2 supplier and workplace product labelling
  - 3.2.3 material safety data sheets
- 3.3 describe handling, storage and transportation procedures when dealing with hazardous material, including:
  - 3.3.1 handling, storing and transporting flammable liquids
  - 3.3.2 handling, storing and transporting compressed gas
  - 3.3.3 storing incompatible materials
- 3.4 describe safe venting procedures when working with hazardous materials, including:
  - 3.4.1 mechanical general ventilation
  - 3.4.2 local ventilation
  - 3.4.3 portable smoke extractor
  - 3.4.4 working in a confined space
- 3.5 describe fire hazards, classes, procedures and equipment related to fire protection, including:
  - 3.5.1 elements of a fire
  - 3.5.2 classes of fires
  - 3.5.3 fire extinguisher labels
  - 3.5.4 extinguishing small fires
  - 3.5.5 the PASS method

## 4. manage an apprenticeship to earn journeyman certification

- 4.1 describe the contractual responsibilities of the apprentice, employer and Alberta Apprenticeship and Industry Training (AIT)
- 4.2 describe the purpose of the apprentice record book
- 4.3 describe the procedure for changing employers during an active apprenticeship
- 4.4 describe the purpose of the course outline
- 4.5 describe the procedure for progressing through an apprenticeship
- 4.6 describe advancement opportunities in this trade

## 5. describe the role of the AIT Board and the network of industry committees that represent the trades and occupations in Alberta

- 5.1 describe Alberta's apprenticeship and industry training system
- 5.2 describe the roles and responsibilities of the AIT Board, government and post-secondary institutions
- 5.3 describe the roles and responsibilities of the Provincial Apprenticeship Committees (PACs), Local Apprenticeship Committees (LACs) and Occupational Committees (OCs)

# 6. use Red Seal products to challenge and interprovincial examination

- 6.1 identify Red Seal products used to develop interprovincial examinations
- 6.2 use Red Seal products to prepare for an interprovincial examination

#### 7. demonstrate safety in an auto body shop

- 7.1 describe types of personal hazards associated with the work assigned to an auto body technician (electrical tools, rotating machinery, compressed air, jacking and hoisting, exhaust gases, etc.)
- 7.2 use safety equipment and procedures when dealing with hazards associated with auto body work
- 7.3 control hazardous products used by auto body technicians

- 7.4 describe environmental hazards associated with the trade
- 7.5 use supplied air breathing systems

## 8. follow work practices that adhere to the regulations of the auto body trade

- 8.1 apply workplace health and safety regulations
- 8.2 apply OHS regulations
- 8.3 apply WHMIS regulations
- 8.4 apply fire regulations
- 8.5 apply WCB regulations
- 8.6 apply environmental regulations including volatile organic compounds (VOC) legislation

# 9. demonstrate basic competencies

- 9.1 demonstrate fundamental skills to:
  - 9.1.1 communicate
  - 9.1.2 manage information
  - 9.1.3 use numbers
  - 9.1.4 think and solve problems
- 9.2 demonstrate personal management skills to:
  - 9.2.1 demonstrate positive attitudes and behaviours
  - 9.2.2 be responsible
  - 9.2.3 be adaptable
  - 9.2.4 learn continuously
  - 9.2.5 work safely
- 9.3 demonstrate teamwork skills to:
  - 9.3.1 work with others
  - 9.3.2 participate in projects and tasks

## 10. create a transitional strategy to accommodate personal changes and build personal values

- 10.1 identify short-term and long-term goals
- 10.2 identify steps to achieve goals

CTS, TMT: ABA3900 / 5 Advanced Revised 2017