

EXAMPLE INTERN SKILLS ACQUISITION LIST

- The following is an example of a skills list that can be used by both employers and interns to track internship milestones.
- A program-specific skills list should be generated based on the style of internship (single discipline, rotating, 12-month duration, 18-month duration etc) and practice caseload (racetrack, breeding, sports horse focused etc).
- This list could be divided in multiple ways including by timeline (i.e. proficiencies required by month 1, 3, 6, 9, 12), discipline (medicine, surgery etc) or expected proficiency level at completion of internship (e.g. observed, assisted with, performed a few times, competent, proficient).
- It is suggested that this list is reviewed on a quarterly basis to help focus clinical opportunities and independent study during the next quarter of the program to ensure the requirements of the internship are fulfilled and to support individual interns' immediate development and future career goals.

Required Preliminary Proficiencies

Must be signed off by a senior clinician by week x of internship (suggest 4-12 weeks depending on how busy the caseload is). If proficiency is not obtained by this time, then further training and mentorship is to be provided by senior staff until the intern is proficient in these skills.

Skill	Observed	Performed	Proficient
Apply and remove PPE following proper practice protocol			
Demonstrate safe handling of adult horses			
Demonstrate safe handling of foals			
Perform thorough physical examinations in adult horses			
Collect blood from the jugular vein of adult horses			
Perform intravenous injections in adult horses			
Perform intramuscular injections in adult horses			
Give oral medications to adult horses			
Apply a nose twitch to adult horses			
Apply a neck twitch to adult horses			
Safely load adult horses in a crush/stocks			
Place over-the needle catheters in adult horses			
Place distal limb bandages on adult horses			
Pass nasogastric tubes in adult horses			
Set up gravity-flow intravenous fluids			
Set up intravenous fluids/CRI medications via pump			
Tie one-handed ties demonstrating proper technique			
Tie surgical knots demonstrating proper technique			
Scrub, gown and glove for surgery using sterile technique			
Perform a sterile skin preparation			
Measure blood lactate concentration			

Skill	Observed	Performed	Proficient
Run a venous blood gas measurement			
Measure packed cell volume, total protein and USG			
Set up, clean, pack up ultrasound machines properly			
Set up, clean, pack up endoscopes properly			
Utilise practice administration systems accurately (billing, medical records, scheduling, drug dispensing etc)			

Competencies Likely To Be Achieved By Internship Completion

NB Will vary annually depending on clinical caseload and individual intern exposure to specific clinical conditions, so while all skills are expected to have been performed, they will not all achieve proficiency. The below example assumes the practice has both high breeding and performance horse exposure. Boxes have been highlighted to indicate likely competency level expected at completion of this theoretical internship.

Internal Medicine

Skill	Observed	Performed	Proficient
Identify abnormal heart, lung and gastrointestinal sounds on auscultation of adult horses			
Identify elevated digital pulses in adult horses			
Perform thorough physical examinations of foals			
Identify abnormal heart, lung and gastrointestinal sounds on auscultation of foals			
Collect blood from the transverse facial sinus of adult horses			
Collect blood from the jugular vein of foals			
Collect blood from the cephalic vein of foals			
Collect blood from the medial saphenous vein of foals			
Place over-the-wire catheters in adult horses			
Place over-the-wire catheters in foals			
Monitor indwelling intravenous catheters for evidence of reaction/infection			
Perform upper respiratory tract endoscopy			
Perform guttural pouch endoscopy			
Perform a rebreathing examination			
Perform thoracic ultrasounds in adult horses			
Perform thoracic ultrasounds in foals			
Perform umbilical ultrasounds in foals			
Perform abdominal ultrasounds in adult horses			
Perform abdominal ultrasounds in foals			
Perform gastroscopy			
Check adult horses effectively for gastric reflux			

Skill	Observed	Performed	Proficient
Place indwelling nasogastric tubes in foals			
Check foals effectively for gastric reflux			
Perform abdominocentesis in adult horses			
Perform rectal palpation of horses with colic			
Perform abdominal lavage through indwelling drains			
Place abdominal bandages and/or hernia belts			
Prepare and administer faecal microbiota transplants			
Prepare and administer enteral fluids			
Administer phosphate +/- retention enemas to foals			
Perform nursing care of critically ill neonatal foals (standing, turning, feeding etc)			
Place entropion sutures in foals			
Place limb bandages and/or splints on foals			
Perform post-foaling uterine lavage in mares			
Milk mares by hand			
Calculate fluid plans for adult horses and foals			
Collect blood from a blood donor			
Perform blood and plasma transfusions			
Perform a thorough ophthalmic examination including auriculopalpebral and supraorbital nerve blocks			
Administer eye medications topically and through a subpalpebral lavage system			
Place and maintain ice boots on adult horses			
Perform euthanasia of adult horses and foals			

Surgery/Anaesthesia

Skill	Observed	Performed	Proficient
Estimate weight of adult horses			
Estimate weight of foals			
Sedate adult horses for standing procedures			
Sedate foals for standing procedures			
Calculate drug dosages for induction of general anaesthesia (GA)			
Induce GA in adult horses			
Induce GA in foals			
Maintain a horse under total intravenous GA with appropriate monitoring			
Maintain a horse under gaseous GA with appropriate monitoring			

Skill	Observed	Performed	Proficient
Place cephalic catheters in adult horses under GA			
Place urinary catheters in adult horses under GA			
Measure blood pressure via non-invasive and invasive techniques			
Recover a horse from GA without rope assistance			
Recover a horse from GA with rope assistance			
Assist in a variety of surgical procedures under GA and standing sedation			
Suture wounds/incisions under supervision with appropriate choice of suture material and technique			
Identify and manage post-surgical complications e.g. haemorrhage/swelling/discharge			
Bandage the carpus			
Bandage the hock			
Bandage the foot			
Dress the stifle			
Perform a musculoskeletal exam of a horse presented for lameness			
Determine degree of lameness and affected limb(s)			
Perform basic lower limb diagnostic nerve blocks			
Perform regional limb perfusion			

Radiology

Skill	Observed	Performed	Proficient
Demonstrate sound knowledge and application of radiographic safety			
Competently set up and use digital x-ray systems			
Demonstrate sound knowledge of appropriate x-ray factors for specific body conditions in the horse			
Obtain a full radiographic yearling/sales survey series using standardised views			
Obtain common radiographic views of the feet, fetlocks, knees, hocks and stifles			
Demonstrate basic knowledge of evaluation of radiographs for diagnostic quality control			
Demonstrate basic knowledge of reading radiographs and an ability to describe common lesions			

Ambulatory/General practice

Skill	Observed	Performed	Proficient
Become familiar with EVA mortality insurance exam process on foals and adult horses			
Perform body condition scoring of adult horses			
Perform trans-rectal palpation and ultrasound			

Skill	Observed	Performed	Proficient
Interpret reproductive ultrasounds of mares at all stages of the oestrus cycle and pregnancy			
Collect samples for pre-breeding culture of mares			
Inseminate a mare with chilled fresh semen			
Perform a Caslicks procedure			
Undo a Caslicks procedure prior to foaling			
Assist in collection of stallions, and semen analysis, handling, transport			
Collect samples for DNA identification of Thoroughbreds and implant microchips			
Administer Hendra virus vaccinations and complete supporting paperwork			
Assist in assessment and treatment of first opinion emergencies e.g. wounds, colics, corneal ulcers			
Suture simple lacerations			
Assist in field castrations			
Perform and document a complete oral and dental examination			
Recognise common dental and oral pathology			
Perform dentistry procedures to manage sharp enamel points and occlusal abnormalities			
Remove shoes			
Demonstrate proficient use of hoof testers			
Localise and treat a subsolar abscess			
Perform a systematic post-mortem examination			
Perform a systematic foetal and placental post-mortem examination			

Additional Skills Which May Be Observed Or Participated In During Internship

These skills are either more general in nature or more rarely performed than the above, and will vary with clinical exposure. They might however be used by the intern to guide ongoing learning.

Skill	Observed	Performed	Proficient
Perform a complete neurologic examination and identify the lesion location			
Perform a prepurchase examination per the EVA prepurchase exam procedure			
Perform a breeding soundness examination on a mare			
Perform a skin scraping			
Aspirate a mass			
Perform a skin biopsy			
Collect samples for cytology and culture from a corneal ulcer			

Skill	Observed	Performed	Proficient
Flush a nasolacrimal duct			
Place a subpalpebral lavage system			
Perform a faecal flotation			
Prepare and read Gram and Diff Quick stained slides			
Clean, debride and dress a variety of wounds			
Assess wounds and identify synovial sepsis			
Remove sutures and staples from healed wounds			
Perform bronchoalveolar lavage			
Perform a transtracheal wash (endoscopic)			
Perform a transtracheal wash (percutaneous)			
Place a thoracic drain under standing sedation			
Perform an emergency tracheotomy			
Perform cystoscopy including identification of ureters			
Perform and interpret skull radiographs			
Perform and interpret neck radiographs			
Perform and interpret thoracic radiographs			
Perform and interpret abdominal radiographs			
Perform arthrocentesis/injection of the carpus			
Perform arthrocentesis/injection of the fetlock			
Perform arthrocentesis/injection of the hock			
Perform arthrocentesis/injection of the stifle			
Perform arthrocentesis of the digital flexor tendon sheath			
Perform and interpret limb musculoskeletal ultrasound			
Discuss the indications and locations of advanced diagnostic nerve blocks			
Discuss indications and limitations for advanced imaging of a lameness case			
Splint a distal limb injury for stabilisation/transport			
Develop and implement a treatment plan for angular limb deformities in foals			
Know the basics of therapeutic joint therapy options			
Perform a castration unassisted			
Treat an uncomplicated umbilical hernia			
Evaluate and recognise the need for advanced dental diagnostic and oral surgery procedures			
Take a complete medical history and tailor questions to the presenting complaint			

Skill	Observed	Performed	Proficient
Formulate a comprehensive problem list and differential diagnosis list following clinical examination			
Develop a diagnostic plan and a treatment plan			
Be able to diagnose and establish a prognosis for common medical and surgical conditions			
Interpret routine laboratory tests for horses of all ages (haematology, biochemistry, urinalysis, SAA, peritoneal or synovial fluid analysis, etc)			
Recognise and treat systemic and localised pain			
Estimate degree of dehydration in adults and foals			
Analyse the basic components of a horse's diet and make general nutritional recommendations			
Formulate a feeding plan for sick neonatal foals and healthy orphan foals			

Skill	Observed	Performed	Proficient
Devise treatment plans in line with recommendations regarding judicious use of antimicrobials			
Understand/be able to find information on drug withdrawal periods and have knowledge of their implications for treatment of performance horses			
Know drug doses of routine medications used in equine practice and be able to develop a treatment plan for less common medications/conditions using the principles of evidence-based medicine			
Be able to formulate a biosecurity plan for common equine contagious diseases e.g. Strangles			
Formulate individual and herd health and wellness programs (vaccinations, parasite prevention etc)			
Recognise and treat laminitis			
Formulate a plan for diagnosis and treat of pneumonia in foals and adults			
Formulate a plan to evaluate and care for a patient with colic, including recognition of the need for likely surgical intervention			
Identify and manage a case of acute colitis			
Develop a diagnostic and treatment plan for common dermatologic diseases e.g. pastern dermatitis.			
Identify and manage a foal with neonatal maladjustment syndrome			
Identify and manage a foal with diarrhoea			
Identify and manage a foal with failure of transfer of passive immunity			
Recognise and grade heart murmurs			
Recognise and develop diagnostic/treatment plans for muscular abnormalities e.g. RER, PSSM			
Recognise and develop diagnostic/treatment plans for endocrine disorders e.g. EMS, PPID			
Develop a plan to medically manage a superficial or deep corneal ulcer, stromal abscess, or foreign body and recognise when surgical intervention is indicated			
Pharmacologically manage a mare's reproductive cycle			

Skill	Observed	Performed	Proficient
Devise and implement treatment plan for a uterine infection			
Treat retained foetal membranes			
Discuss the aspects of an unsuccessful breeding cycle (mare, stallion and management factors)			
Have knowledge of the techniques of managing mares being bred with frozen semen vs chilled vs live cover			
Maintain complete and concise medical records			
Effectively communicate over the telephone			
Write clear discharge Instructions in lay terminology			
Manage time and resources appropriately to meet the needs of a busy schedule including emergencies			
Work co-operatively as a member of a mixed team of professionals and co-workers			

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