INTRODUCTION

By the time a student is ready to take the Diploma Examination he/she should have a working knowledge of the basic management practices of the various types of horse and a detailed knowledge of matters relating to its limbs. He/she will have achieved their NVQ level 3 in farriery, and should have a good general knowledge of farriery matters and a much more detailed knowledge of the following aspects of the equine:

a. Anatomy.
b. Physiology.
c. Conformation.
d. Dynamics and movement (gait).
e. Injuries.
f. Ailments/diseases affecting the foot and limb.
g. Shoeing practices.

The practical skills of a student about to take the Diploma Examination should be such that he/she can make any of the shoes that might be set in the practical task to a competent standard. He/she must also be able to prepare feet, fit, nail and finish to a competent standard.

Students should familiarise themselves with the performance criteria and standards and conditions laid down in the WCF Diploma Terminal Objectives, which are listed at Annexes B and C. The terminology used throughout is as currently understood in the United Kingdom of Great Britain and Northern Ireland.

GENERAL

The general knowledge and practical ability required by students includes the following:

a. A clear understanding of the provisions of the Farriers Registration Act 1975 (Revised 1977) and the Farriers Guide to Professional Conduct.
b. A clear understanding of Health & Safety matters as they affect the farrier’s work.
c. Recognise and state the function of each item in a farrier’s standard tool kit.
d. Maintain, sharpen, and repair all farriery tools.
e. Apply general safety precautions when handling horses, working on the anvil and in the forge.
f. Operate safely a coke forge fire and a gas forge.
g. Recognise the varieties of breed and type of horse.
h. Demonstrate an ability to restrain and manipulate a horse for shoeing (Note: difficult horses may need to be sedated by a vet prior to shoeing).
i. State the frequency and reason for shoeing horses.
j. A thorough understanding of equine anatomy, physiology, and conformation from below the distal radius and tibia.
k. A good general knowledge of equine anatomy above and including the distal radius and tibia - with particular reference to the ‘stay’ apparatus.
l. Identify lameness in a horse in either the fore or hind limb.
m. Identify faults in conformation which predispose to lameness.
n. Recognise the common diseases and injuries of the horse’s foot and leg.
o. Remove old shoes and prepare the feet for shoeing.
p. Recognise misshapen feet on a horse and be able to take the remedial trimming action required.
q. Make and fit both front and hind shoes from either flat bar or concave section mild steel (see Annex B).
r. Nail on and finish off shoes.
s. Assess the horse prior to shoeing and evaluate the work after shoeing.

TECHNICAL KNOWLEDGE REQUIRED

ANATOMY AND PHYSIOLOGY

A student must have a good, working knowledge of equine anatomy, and be able to demonstrate the relationships between the anatomical structures of the foot and limb, and also the pathology of conditions affecting the foot and limb. He/she must be able to:

a. Identify, name and explain the function of the following structures below the distal row of carpal & tarsal bones:

   (1) Bones.
   (2) Joints.
   (3) Muscles & tendons.
   (4) Ligaments & cartilage.
   (5) Major blood vessels and general circulation.
   (6) Nerves and lymphatic system.
   (7) Skin and its modifications (e.g. hoof wall, sole etc.).

b. Have a good understanding of equine anatomical terms.
c. Have a good understanding of normal conformation and be able to identify general conformational abnormalities.

LAMENESS

An understanding of lameness and related conditions is required. This includes the following:

a. Recognition of lameness in fore and hind limbs.
b. Signs of lameness which would indicate a foot lameness.
c. Abnormalities of conformation in the horse which predispose to lameness.
d. Other types of equine condition leading to lameness.
e. Diseases and injuries to the foot and limb.
FARRIERY THEORY

Students are required to demonstrate knowledge of how farriery can affect conditions of the foot and limb. They should have knowledge of what remedial / therapeutic/corrective shoeing processes (incl. foot preparation and fitting) should be undertaken for these conditions.

Students should understand and put into practice the principles of foot balance, recognising in particular:

a. Individual foot fall.
   b. Anterior/posterior imbalance.
   c. Medio-lateral imbalance.
   d. Shoe wear.
   e. Correct alignment of hoof and digit.

The Practice of Shoeing. A good level of knowledge of the following is required:

a. Management and control of the horse.
   b. Horses which are difficult to shoe.
   c. Faults which can occur in the preparation of the foot.
   d. Faults that can occur when forging shoes.
   e. Faults that can occur in the fitting of shoes.
   f. Faults that can occur in the nailing on and finishing off.
   g. Foals - mature horses.
   h. Foot and limb conformation.
   i. The horse’s action and factors which affect it.
   j. How the type of work (e.g. hunter, dressage) influences both selection of shoe and fit.
   k. Wear of the shoe.
   l. Describe the points to be looked for when assessing a newly shod horse:

   (1) When the foot is on the ground.
   (2) When the foot is lifted off the ground.
   (3) When the horse is walked and trotted up.

Hygiene and Care of the Foot. A good level of knowledge is required of:

a. General care of the feet (shod and unshod).
   b. Moisture and its effect on the feet.
   c. Hoof growth.
   d. Seasonal effects and the effect that different types of terrain have on the feet.

Styles of Shoeing. Students need to be aware of the different styles (see the Apprenticeship Reference Guide) of shoeing and trimming required for the following:

a. Thoroughbred (racing).
   b. Hunters.
   c. Show jumpers.
   d. Leisure horses & ponies.
   e. Driving horses and ponies.
   f. Draught horses.
   g. Eventers.
   h. Hackneys.
   i. Polo ponies.
   j. Dressage horses.
   k. Harness racing.
   l. Donkeys.
   m. Mules.
Additional Materials. A working knowledge is required of the following:

a. Pads for protection/concussion.

b. Pads to alter hoof balance (ie. wedges).

An awareness of modern materials such as plastics, fibreglass, acrylic, epoxy-resin & cyanoacrylates and their potential uses is also required.

LEVEL OF PRACTICAL ABILITY REQUIRED

Students are expected to make an assessment of the feet and limbs to be shod. An appropriate amount of excess hoof growth should then be removed. The hoof is then dressed in accordance with the conformation of the limb.

A student should be able to make, fit, nail on, and finish all the types of shoe and variations listed at Annex A. They need to be competent on both coke and gas as heat sources for making shoes.

THE DIPLOMA EXAMINATION

GENERAL

The Examination will be over 2 or 3 separate days; the Written Paper being taken on the first day and the Practical and Oral on subsequent days. For marking purposes, the Written Paper and Oral Assessment form the Theory Part, whilst the Practical Examination is the other part.

WRITTEN PAPER

Five questions will be set, all of which should be answered. The questions will be on:

a. Any aspect of the principles of farriery as applied to different types of equine.

b. The anatomy of all the structures of the fore and hind limbs, with special attention to the lower limb from the carpus and tarsus to the hoof and its contents.

c. The functions of the joint-capsule, synovia, tendons, ligaments, and cartilage.

d. Aspects relating to equine diseases and conditions which affect the lower limb and foot.

e. Some aspects of surgical, remedial, and corrective shoeing recognised in the syllabus as a standard textbook.

f. Any other aspect relating to the broader scope of farriery which is included in the DipWCF Syllabus.

Unless otherwise indicated, the answers to questions will be expected to be in essay form.

Questions, or part questions, may carry different marks. This will be indicated on the question paper.

The time allowed for the Written Paper is 2 hours and 30 minutes.
ORAL ASSESSMENT

Usually in the same session as the Practical, there will be an Oral Assessment of not less than 30 minutes. The time is normally divided equally between the 2 farriery examiners and the veterinary examiner; the candidate spending 10 minutes with each.

Candidates will be asked surface and functional anatomy questions on a live horse, and be expected to have some knowledge of, and be able to discuss radiographs of a normal lower limb. Candidates are also expected to be conversant with the skeletal structure of the horse.

Candidates may be asked questions on their written work and general subjects relating to farriery as well as specific questions on the anatomy of the lower limb; for which morbid specimens are used.

Candidates will also be asked questions on their portfolio of shoes which they must bring to the oral examination.

PRACTICAL EXAMINATION

Specimen Shoes.

The Candidate will produce a portfolio of practical work (of between 8 and 12 shoes) of his/her own making at the time of the Practical Examination. Specimen shoes should include examples of concave, hand fullering, forge welding, and plain stamping. Specimen shoes will be marked as part of the practical examination, and the examples in the portfolio are important as Examiners will compare the standard of the samples with that achieved in the practical examination. Candidates will also require their specimen shoes during the oral examination.

Live Horse Shoeing.

a. Candidates are expected, as part of their shoeing plan, to assess, during a trot-up, the conformation and movement of the horse allotted to them. Candidates can expect to be questioned on this.

b. Any abnormality of the wall, sole, or frog should be noted and the Senior Examiner informed.

c. The Candidate will be asked to prepare a fore and hind foot to receive a shoe, followed by making one fore and one hind shoe. Any shoe listed in Annex B can be asked for by the Examiners. However, one shoe will either be plain stamped or of concave section, and the other hand fullered. These shoes are required to be fitted correctly and finished.

d. Examiners should select different styles for the front and hind foot in order to assess a range of ability from the candidate. A shoeing cycle is to be provided for each task.

e. The Examiners reserve the right to change the specified task on each day of the examination.

f. A Striker will not be allowed.

g. Students must be prepared to use either coke or gas as a heat source for forging and shoeing during the Examination.
On completion of the task, candidates will be expected to evaluate their work to the examiners.

The welfare of the horse during the test is paramount and Examiners have discretion to stop the Examination at any time if the horse's welfare is compromised.

The time allowed for the Practical Examination is 2 hours.

MARKING GUIDE

A copy of the live horse shoeing Marking Sheet is attached at Annex F on which is shown all the factors taken into account by the examiners when marking a candidate’s practical work.

Candidates are expected to gain at least 50% of the available marks on each foot in each of the four Sections plus the shoe board, and complete the task in order to pass the Practical part of the Examination (ie. hoof preparation, shoe making, shoe fitting, nailing and finishing must be completed on both feet). An overall mark of 60% is required for a pass.

Copies of the National Standards of Competence for Farriery, S/NVQ level 3 are available from the National Farriers Training Agency. Candidates are also advised to read the books on the WCF recommended reading list.

LIST OF ANNEXES:

A. Types of shoe and variations.
B. Objectives and Standards – Practical Skills: Shoeing.
C. Objectives and Standards – Live Horse Assessment & Oral Examination.