

Equine Studies

Degrees:

AAS	Equine Studies	
Tracks:	Jockey Track	60-63
	Horseman Track	60-63

Diploma:	Equine Studies	
Tracks:	Jockey Track	52-55
	Horseman Track	52-55

Certificate:	Exercise Rider	22
	Care and Breaking	20
	Equine Industry Workforce	16
	Veterinary Assistant	27

Description:

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, feet, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistant trainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.

Other Certificates:

The Equine Industry Workforce Certificate will prepare students for entry level careers in the equine industry. Students will learn the basics of equine studies, equine physiology, and care of the racehorse. Lecture classes will be provided online through BCTC/NARA, while the hands-on laboratory work associated with the courses may be offered by BCTC/NARA or in partnerships with other KCTCS colleges and racecourses within their districts.

The Veterinary Assistant Certificate will prepare students for application into the AAS in Veterinary Technology program at Morehead State University. Students will receive a core of general education courses, as well as an introduction to animal sciences and physiology. The racehorse care class and one credit hour of co-operative education in a local veterinary clinic will provide the student with the work experience/job shadowing hours typically required for consideration of acceptance into a Veterinary Technology program.

Implementation: Fall 2013

Competencies:

AAS in Equine Studies:

Upon completion of this program, the graduate can:

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds, through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
 - inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
 - civic knowledge and engagement (local and global)
 - intercultural knowledge and competence
 - ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Core Competencies for AAS in Equine Studies

Upon completion of this program the student can:

1. Meet or exceed industry accepted safety and accuracy standards while demonstrating competencies.
2. Explain how the horse's anatomy developed in response to pressure from predators.
3. Visually evaluate conformation of yearlings and identify faults that reduce the likelihood of racing success.
4. Write a nutrition plan including feedstuffs to use amounts and cost analysis.
5. Evaluate condition of a stall as a means of determining a horse's well-being each day.
6. Efficiently and properly clean and re-bed a stall in accordance with industry standards.
7. Describe advantages and disadvantages of different types of bedding.
8. Approach, restrain and lead a racehorse.
9. Complete assigned chores within time limits imposed in a typical racing operation.
10. Identify, name, and describe the function and proper use of equine grooming tools.
11. Pick up and clean horses' hooves.
12. Determine a horse's vital signs and understand values that indicate normal, caution and red-alert situations.
13. Tack a racehorse with exercise tack, properly adjusted, in less than 10 minutes.
14. Apply polo and standing bandages that meet minimum industry standards.
15. Examine a horse's mouth for teeth problems.
16. Tie a horse's tongue to prevent obstruction of its airway during training.
17. Name and locate at least 20 major external body parts of a horse.
18. Systematically examine a horse and report results of that examination to an appropriate supervisor.
19. Examine a stalled racehorse and determine its suitability for daily exercise.
20. Develop a stall chart for keeping daily vital signs and examination results.
21. Prepare a turn-out schedule to facilitate the efficient use of limited paddock space.
22. Use principles of herd hierarchy to minimize the risk of injury to horses and humans during turn-out procedures.
23. Identify at least nine different racing plates and name situations in which each might be used on racehorses.
24. Hold a horse while that horse is being shod.
25. Remove a dislodged horse shoe to prevent further damage to a horse's hoof.
26. Identify and describe function of various types of headgear worn by racehorses, including and not limited to blinkers, ear muffs and shadow roll.

27. Place headgear on a racehorse at the appropriate time prior to exercise and remove that headgear after exercise.
28. Tack a racehorse, assisted by a valet, with racing tack, properly adjusted, in less than 10 minutes.
29. Provide valet assistance for a trainer in the proper tacking of a racehorse with race tack.
30. Measure height and weight of a horse and describe how to give a horse a body condition score.
31. Identify three muscle fiber types and explain how training affects each.
32. Define "tying-up" and apply management methods to minimize muscle damage.
33. Trace the pathway of food through the digestive tract and explain the digestive physiology that takes place in each major part.
34. Explain thermoregulation in the horse and management practices for non-sweaters.
35. Identify skin diseases and treatment.
36. Draw a schematic of the circulatory system and show how nutrients and oxygen are delivered to cells.
37. Describe respiration and its relation to circulation and oxygen delivery.
38. Explain the physiology of exercise induced pulmonary hemorrhage (EIPH) and use of medications and/or management techniques to prevent EIPH.
39. Explain the functioning of the nervous system and its relationship to the proper regulation and functioning of other body systems.
40. Name four neurological diseases, explain possible causes and describe biosecurity measures to prevent or control outbreaks.
41. Name all components of racehorse exercise and racing tack.
42. Explain importance of historically significant race riding events.
43. Explain philosophy of the relative importance of horse and rider in successful racing performance.
44. Demonstrate the importance of planning daily activities to provide maximum opportunity for a successful career.
45. Name the breed associations responsible for administering racing of three major racing breeds.
46. Identify at least two racing benevolent associations and explain how each provides assistance to racing industry workers.
47. Name, recognize the abbreviation for, and identify the location of at least one major racetrack in each state that conducts pari-mutuel wagering.
48. Identify two major racing conglomerates, the racetracks belonging to each and the racing dates of those tracks.
49. Identify administrative personnel responsible for conducting race meetings and those responsible for ensuring that activities are conducted within the guidelines set by local and national racing laws.
50. Describe the location of distance poles on various sized racing ovals and use those poles to monitor cardiovascular fitness changes in racehorses.
51. Follow the legal procedures to claim a racehorse and manage a racehorse post-claiming in keeping within the rules of racing.
52. Explain how purses are funded and how racehorses earn money for owners, trainers and jockeys.
53. Maintain a high level of performance as a jockey, trainer, or racehorse care professional while abiding by the rules of racing regarding drug and alcohol use.
54. Name at least ten therapeutic drugs, the use of which is permitted in racehorses, the proper use of those medications, and consequences for violations of state and national racehorse drug policies.
55. Describe relative advantages and disadvantages of three major racing publications.
56. Explain the importance of regularly scheduled timed workouts for racehorses.
57. Apply splint support bandages, plastic rundown patches, glue on rundown patches and speedy cut patches.
58. Use weather statistics to determine when heat index is at critical level.
59. Recognize characteristics of anhidrosis (non-sweating).
60. Provide proper care to minimize distress of non-sweaters.
61. Recognize signs of heat stroke and administer immediate aid to horse about to heat stroke.
62. Body clip a racehorse.
63. Prepare a schedule of timed workouts designed to have racehorses ready for specific performances.
64. Supervise beginning grooms and give basic instructions regarding daily horse care.
65. Winterize a racing stable barn.
66. Identify blanket types and instruct beginning grooms regarding when and how to use them.
67. Name the bones of the skull, vertebrae and pelvis.
68. Identify 17 bones of the front leg.

69. Identify 14 bones of the rear leg.
70. Name and locate 6 major joints.
71. Recognize the horse's natural response to injury.
72. Contrast gaits of a sound horse to gaits of an injured horse, depending on the injury.
73. Recognize and identify three developmental and conformational lamenesses.
74. Describe primary cause and symptoms of at least 5 concussion injuries.
75. Define four types of fractures and identify on a skeletal model where each may occur.
76. Locate the site of three primary soft tissue injuries of racehorses and give four predisposing conditions that increase the incidence of those injuries.
77. Name six major anatomical parts of the hoof.
78. Describe four injuries to the horse's foot that cause lost training time.
79. Name the primary parts of the nervous system.
80. Name and locate on a horse at least 12 major muscles or muscle groups.
81. Define inflammation and describe the inflammatory cascade.
82. Recognize the difference between acute and chronic injuries and provide proper therapy for each.
83. Define cold, heat, and touch therapy methods and tell when and how each is used.
84. Describe at least two advantages and two disadvantages of three different alternative forms of therapy.
85. Write clearly defined short, medium, and long term goals.
86. Develop a marketing plan for selling a racing stable or farm management service.
87. Draw up a buy-sell agreement that will protect the buyer, seller, and the trainer.
88. Identify three warning signs that indicate impending problems with friends, co-workers, employees or employers.
89. Evaluate health insurance plans and select one that is economically appropriate for a training operation.

Competencies for Jockey Track:

1. Meet or exceed established safety procedures when performing competencies.
2. Describe the physical, mental and emotional requirements of becoming a professional jockey.
3. Explain regulatory agency rules regarding licensing of apprentice and journeyman jockeys.
4. Explain importance of historically significant race riding events.
5. Explain philosophy of the relative importance of horse and rider in successful racing performance.
6. Demonstrate the importance of planning daily activities to provide maximum opportunity for a successful career.
7. Identify center of gravity of horse, rider and horse/rider combination.
8. Demonstrate correct position for seat, back, feet, legs, hands and arms at walk, trot and canter.
9. Mount a racehorse correctly, untacked and tacked, standing or walking.
10. Demonstrate proper procedure for adjusting tack before and after mounting.
11. Demonstrate proper way to loosen tack, dismount and cool out a racehorse after exercise.
12. Water off, bathe and cool out a hot horse according to industry approved protocols.
13. Apply principles of correct body position to exercising a racehorse on a racing oval.
14. Use change of balance (body position) to identify possible unsoundness while mounted.
15. Ride a racehorse to and from a training oval for morning exercise in a professional manner.
16. Demonstrate professional skills in relaxing a racehorse on the track, warming it up prior to exercise and exercising it according to a trainer's instructions.
17. Ride a racehorse into a starting gate, sit quietly on the horse as it stands in the gate and break the horse from the gate to the satisfaction of a licensed starter.
18. Partner with a young racehorse as that horse is being schooled in starting gate procedures.
19. Assess a dangerous situation involving an unruly racehorse quickly and take action to maximize safety of horses and humans.
20. Describe differences, advantages and disadvantages of riding different breeds of racehorses.
21. Gallop a racehorse a mile in 2 minutes plus or minus 2 seconds.
22. Breeze a racehorse 4 furlongs within 0.40 seconds of assigned time.
23. Get a horse to switch leads going into and coming out of turns.
24. Describe the difference between front runners, off-the-pace runners, and closers.
25. Describe the differences in race riding strategy on turf, dirt, and synthetic racing surfaces.
26. Demonstrate ability to get a horse to pass outside, between, and inside of other horses.
27. Break a horse from a starting gate and continue on a straight path.

28. Switch stick from one hand to the other at breezing speed.
29. Demonstrate and apply technique of cocking stick & encouraging racehorse to increase speed.
30. Break a horse from a starting gate in company of at least three other horses.
31. Breeze a horse a prescribed distance starting at any distance pole on a racetrack.
32. Gallop a racehorse at race speed over an undulating turf course.
33. Recognize breathing problems in an exercising racehorse and report same to trainer.
34. Describe concept of interference and “clear path” with regard to race riding.
35. Write a schedule for race day activity from morning work through final mount of day.
36. Recite rules of racing regarding reporting weights, weighing out and weighing in.
37. Recite rules of racing with regard to post parade, warm up and reporting problems to a track veterinarian.
38. Evaluate riding techniques by watching videos of mounted exercise.
39. Write a balanced nutrition plan for healthy weight maintenance.
40. Prepare an investment portfolio based on a hypothetical salary.
41. Write elements for a working agreement between a jockey and a jockey agent.
42. Develop a log for maintaining details of morning workouts.
43. Give explanation to trainer regarding failure of a racehorse to perform as expected.
44. Use computer programs designed to help jockey manage all aspects of daily activities.

Horsemen’s Track Competencies:

1. Describe the requirements for becoming a licensed racehorse trainer.
2. Identify five trainers of historical significance and their contribution to racing.
3. Identify five owners and/or breeders of major historical significance and their respective contribution.
4. Identify five thoroughbred racehorses that made a lasting impression on their breed and tell what contributions were made by each.
5. Describe three methods of weaning and give at least 3 advantages and disadvantages of each.
6. Write a plan for managing weanlings including health care, nutrition and handling.
7. Describe the basic concept of pedigree analysis for purchasing weanlings and yearlings.
8. Visually evaluate movement of weanlings and yearlings as part of a pre-acquisition exam.
9. Identify advantages/disadvantages of three different methods of breaking and handling yearlings.
10. Identify the major racehorse yearling sales in the U.S.
11. Write a management plan for preparing a yearling for sale at a designated yearling sale.
12. Use the technique of pressure-release to halter break and train to lead a weanling and/or yearling racehorse.
13. Use technique of pressure-release to desensitize yearling to disconcerting everyday sights and sounds.
14. Write a plan for managing two-year old racehorses from yearling through breaking and transport to a training facility.
15. Cue a two-year old in a round pen to walk, trot, canter, stop, face instructor and approach instructor when asked to do so.
16. Teach two-year old to accept bit without resistance.
17. Mount a tackless two-year old using “belly-up” technique without horse bucking and/or running off.
18. Teach two-year old to accept yoke and saddle without resistance.
19. Write a personal guide for selecting a two-year old racing prospect including pedigree, conformation, movement, and breezing standards.
20. Identify four major two-year olds in training sales and state their historical importance.
21. Write a plan for pinhooking a yearling to a specific two-year old in training sale.
22. Develop a training plan for preparing a two-year old to race in the Breeders’ Cup Juvenile.
23. List five major disadvantages of training and racing two-year olds.
24. List five major advantages of training and racing two-year olds.
25. Name five throat and respiratory problems that may affect two-year olds.
26. Name and give the causative agent of three major respiratory diseases that most often affect two-year olds.
27. Write a shoeing schedule for a two-year old racehorse.
28. Name five major American Quarter Horse futurities, their location and purse amount.
29. Name five major thoroughbred futurities and/or stakes races.
30. Give three reasons Saratoga and Del Mar are important venues for two-year old thoroughbred racing.
31. Prepare a daily exercise chart for all horses in stable.
32. Enter results of daily exercise into stable’s master training log using industry standard abbreviations.
33. Explain the importance of regularly scheduled timed workouts for racehorses.

34. Use weather statistics to determine when heat index is at critical level.
35. Design and implement a fitness schedule for racehorses in training.
36. Prepare a schedule of timed workouts designed to have racehorses ready for specific performances.
37. Describe the difference between front runners, off-the-pace runners and closers.
38. Write daily training plan.
39. Identify characteristics of three muscle fiber types and explain differences in the relative percentages of each type in four different racing breeds.
40. Write a training plan to improve cardiovascular fitness of a racehorse.
41. Write a training plan to improve muscle fitness of a racehorse.
42. Apply advantages of three different training methods to conditioning an assigned racehorse.
43. Name ten different types of racehorse shoes and explain circumstances under which each may be used.
44. Develop a shoeing schedule for horse(s) assigned to student.
45. Develop a timed workout schedule for horses just starting training, horses nearing their first start and between races for horses already racing.
46. Develop a pre-acquisition checklist that includes veterinary exam.
47. Identify medications approved for use with racehorses and explain penalties for misuse of medication.
48. Prepare an emergency first aid kit for employees and horses.
49. List three advantages and three disadvantages of injury detection equipment, treadmills and eurocisors.
50. Evaluate a horse's fitness by examining a training chart.
51. Instruct exercise riders on proper track protocol for morning exercise.
52. Define duties of stewards and give five areas in which a trainer may interact with a steward.
53. Read a condition book and determine which races fit conditions of assigned horses.
54. Give the correct preference date of any NARA horse in training.
55. Enter a horse with correct impost based on race conditions.
56. Contract with a jockey or jockey agent to ride in a specific race.
57. Participate in any position in a post-position draw.
58. Write an activity schedule for a runner from entry day to the day after that race.
59. Give three advantages and three disadvantages of three different hauling methods.
60. Describe three different situations in which a racehorse will be hauled.
61. Give three advantages and three disadvantages of shipping bandages.
62. Demonstrate proper procedure for applying shipping bandages.
63. Utilize computer programs designed to assist trainer with daily activities, evaluating runners, billing clients and maintaining employee records.
64. Clearly and concisely explain to an owner the training status of that owner's horse and describe actions involved when owner's horse(s) participates in a race.
65. Confidently answer questions of racing press in clear and understandable manner.
66. List two national laws and one state law that govern racing.
67. Explain concept of pari-mutuel wagering.
68. List the basic rules of racing governing establishment of a pari-mutuel racetrack.
69. Write a condition book for NARA racing stable.
70. Use past performances to establish impost for racehorses entered in handicap races.
71. Card ten races and give reasoning for placing individual races in specific order.
72. Develop ideas for, promote and conduct a special day of racing for NARA horses and students.
73. Define three straight wagers, three two-horse wagers, two 3-horse wagers, two 4-horse wagers and three carry-over wagers.
74. Develop a communications plan and promote NARA training races to local and industry media.
75. Define simulcasting and give three examples of the importance of simulcasting.
76. Use the Encompass internet driven data base system of making entries and preparing a race day program for sale to general public.
77. Use EquineLine computer system to obtain information on NARA horses for racing and promotion purposes.

Diploma in Equine Studies:

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds, through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
 - inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
 - civic knowledge and engagement (local and global)
 - intercultural knowledge and competence
 - ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Technical Core Competencies:

1. Manage daily racehorse care including feeding, stall environment, and grooming.
2. Apply industry regulated tack and bandages in appropriate fashion and time (10 minutes each).
3. Manage horse health including vital signs, teeth, injuries, and disease.
4. Practice basic farrier skills and knowledge.
5. Identify and adapt racing tack and headgear.
6. Identify all major bones and muscles of the horse.
7. Identify the anatomy of and describe the physiology each of the horse's major systems including the digestive, respiratory, circulatory, nervous, and urinary systems.
8. Describe the location of distance poles on various sized racing ovals and use those poles to monitor cardiovascular fitness changes in racehorses.
9. Explain how purses are funded and how racehorses earn money for owners, trainers and jockeys.
10. Name at least ten therapeutic drugs whose use is permitted in racehorses, the proper use of those medications and consequences for violations of state and national racehorse drug policies.
11. Describe relative advantages and disadvantages of three major racing publications.
12. Design and implement a fitness schedule for racehorses in training.
13. Recognize and identify three developmental and conformational lamenesses.
14. Describe primary causes and symptoms of at least 5 concussion injuries.
15. Define four types of fractures and identify on a skeletal model where each may occur.
16. Locate primary site of three primary soft tissue injuries of racehorses and give four predisposing conditions that increase the incidence of those injuries.

Jockey Track Competencies:

1. Explain and apply regulatory agency rules regarding licensing of apprentice and journeyman jockeys.
2. Explain philosophy of the relative importance of horse and rider in successful racing performance.
3. Identify center of gravity of horse, rider and horse/rider combination.
4. Demonstrate correct body position at the walk, trot and canter.
5. Mount a racehorse correctly, untacked and tacked, standing or walking.
6. Use change of balance (body position) to identify possible unsoundness while mounted.
7. Ride a racehorse to and from a training oval for morning exercise in a professional manner.
8. Demonstrate professional skills in relaxing a racehorse on the track, warming it up prior to exercise and exercising it according to trainer instructions.
9. Ride a racehorse into a starting gate, sit quietly on the horse as it stands in the gate and break horse from gate to satisfaction of a licensed starter.
10. Assess a dangerous situation involving an unruly racehorse quickly and take action to maximize safety of horses and humans.
11. Describe differences, advantages and disadvantages of riding different breeds of racehorses.

12. Gallop a racehorse a mile in 2 minutes plus or minus 2 seconds and breeze a racehorse 4 furlongs within 0.40 seconds of assigned time.
13. Describe the difference between front runners, off-the-pace runners and closers.
14. Describe differences in race riding strategy on different surfaces including turf, polytrack, and dirt.
15. Demonstrate and apply technique of cocking stick & encouraging racehorse to increase speed.
16. Describe concept of interference and “clear path” with regard to race riding.
17. Manage race day activity from the morning work through final mount of day.
18. Recite rules of racing regarding reporting weights, weighing out and weighing in.
19. Recite rules of racing with regard to post parade, warm up and reporting problems to track veterinarian.
20. Write a balanced nutrition plan for healthy weight maintenance.
21. Prepare an investment portfolio based on a hypothetical salary.
22. Evaluate riding techniques by watching videos of mounted exercise.

Horseman Track Competencies:

1. Describe the requirements for becoming a licensed racehorse trainer.
2. Identify trainers of historical significance and their contributions to racing.
3. Visually evaluate conformation of weanlings and yearlings and identify characteristics and how they relate to racing success.
4. Describe the basic concept of pedigree analysis for purchasing weanlings and yearlings.
5. Identify the major racehorse yearling sales in the U.S.
6. Write a management plan for preparing a yearling for sale at a designated yearling sale.
7. Use technique of pressure-release to halter break, desensitize, and train a weanling.
8. Cue a two-year old in a round pen to walk, trot, canter.
9. Teach two-year old to accept bit without resistance.
10. Write a personal guide for selecting a two-year old racing prospect including pedigree, conformation, movement, and breezing standards.
11. Write a plan for pinhooking a yearling to a specific two-year old in training sale.
12. Develop a training plan for preparing a two-year old to race.
13. Manage common training injuries including applying glue on run-down patches, speedy-cut patches, and splint support bandage.
14. Write a training plan to improve cardiovascular and muscular fitness of a racehorse.
15. Explain the advantages and disadvantages of different conditioning methods used on a racehorse.
16. Identify medications approved for use with racehorses and explain penalties for misuse of medication.
17. Utilize computer programs designed to assist trainer with daily activities, evaluating runners, billing clients and maintaining employee records.
18. Develop a marketing plan for selling a racing stable or farm management service.
19. Develop a public relations plan to promote NARA training races to local and industry media.

Exercise Rider Certificate

At the completion of this certificate program, the graduate can:

1. Demonstrate requirements for becoming a licensed professional exercise rider including physical, mental, and emotional components, regulatory agency requirements and necessary life management skills.
2. Demonstrate principles of care for racehorses in a race barn training environment applying industry accepted standards and techniques while providing daily care for 1 or 2 racehorses.
3. Identify and apply knowledge of the anatomy and functioning of the horse’s body systems to the raising, training, and management of horses.
4. Demonstrate basic horse riding skills and their application to racehorse riding including proper rider position at walk, trot, canter, on turn and in straights.
5. Demonstrate an awareness of racing industry organizations, personnel, facilities and the rules of racing.

Racehorse Care and Breaking Certificate

At the completion of this certificate program, the graduate can:

1. Demonstrate requirements for becoming a licensed racehorse trainer including physical, mental, and emotional components, regulatory agency requirements and necessary life management skills.
2. Demonstrate an awareness of racing industry organizations, personnel, facilities and the rules of racing.
3. Demonstrate principles of care for racehorses in a race barn training environment applying industry accepted standards and techniques while providing daily care for one or two racehorses:
 - a. Determining the horse's well-being by evaluating the condition of the stall, evaluating vital signs, and the systematic examination of the horse to include the teeth, hooves, and legs.
 - b. Identify, name, and describe the function and proper use of equine grooming tools, tack, and other tools and equipment utilized in the care of horses.
 - c. Properly apply bandages, patches, and ointments or medicines under the direction of the trainer or vet.
4. Identify and apply knowledge of the anatomy and functioning of the horse's body systems to the breeding, raising, training, and management of horses.
5. Comprehend the importance of equine nutrition to the equine athlete, and have an understanding of basic nutritional needs at various stages of development for a race horse.
6. Identify characteristics and recognize signs of disease or injuries that may affect the breeding, raising, or training of the horses, and provide proper care to minimize distress to horses displaying symptoms.
7. Design and implement a fitness schedule for racehorses in training including timed workouts designed to have racehorses ready for specific performances.
8. Name at least ten therapeutic drugs, the use of which is permitted in racehorses, the proper use of those medications, and consequences for violations of state and national racehorse drug policies.

Equine Industry Workforce Certificate

At the completion of this certificate program, the graduate can:

1. Demonstrate an awareness of racing industry organizations, personnel, facilities and the rules of racing.
2. Demonstrate principles of care for racehorses in a race barn training environment applying industry accepted standards and techniques while providing daily care for one or two racehorses:
 - a. Determining the horse's well-being by evaluating the condition of the stall, evaluating vital signs, and the systematic examination of the horse to include the teeth, hooves, and legs.
 - b. Identify, name, and describe the function and proper use of equine grooming tools, tack, and other tools and equipment utilized in the care of horses.
 - c. Properly apply bandages, patches, and ointments or medicines under the direction of the trainer or vet.
3. Identify and apply knowledge of the anatomy and functioning of the horse's body systems to the breeding, raising, training, and management of horses.

Veterinary Assistant Certificate

Upon completion of this program, the graduate can:

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds, through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
 - inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
 - civic knowledge and engagement (local and global)
 - intercultural knowledge and competence

- ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Technical Competencies:

1. Demonstrate principles of care for racehorses in a race barn training environment applying industry accepted standards and techniques while providing daily care for one or two racehorses:
 - a. Determining the horse’s well-being by evaluating the condition of the stall, evaluating vital signs, and the systematic examination of the horse to include the teeth, hooves, and legs.
 - b. Identify, name, and describe the function and proper use of equine grooming tools, tack, and other tools and equipment utilized in the care of horses.
 - c. Properly apply bandages, patches, and ointments or medicines under the direction of the trainer or vet.
2. Identify and apply knowledge of the anatomy and functioning of the horse’s body systems to the breeding, raising, training, and management of horses.
3. Describe how farm animals were domesticated and describe the relationship between humans and domestic animals in the U.S.
4. Identify farm animals zoologically, by type and class.
5. Enumerate the characteristics of domestic livestock species to include reproductive systems, and digestive characteristics.
6. Explain factors influencing production performance.
7. Explain the growth and development of each of the livestock species studied.
8. Discuss the function of the nutrients and the importance of proper management.
9. Describe the mating systems of each breed studied.
10. Discuss the genetic make-up of each breed and how genetics can be used in improvement of livestock breeds.
11. Measure height and weight of a horse and describe how to give a horse a body condition score.
12. Identify three muscle fiber types and explain how training affects each.
13. Define “tying-up” and apply management methods to minimize muscle damage.
14. Trace the pathway of food through the digestive tract and explain the digestive physiology that takes place in each major part.
15. Explain thermoregulation in the horse and management practices for non-sweaters.
16. Identify skin diseases and treatment.
17. Draw a schematic of the circulatory system and show how nutrients and oxygen are delivered to cells.
18. Describe respiration and its relation to circulation and oxygen delivery.
19. Explain the physiology of exercise induced pulmonary hemorrhage (EIPH) and use of medications and/or management techniques to prevent EIPH.
20. Explain the functioning of the nervous system and its relationship to the proper regulation and functioning of other body systems.
21. Name four neurological diseases, explain possible causes and describe biosecurity measures to prevent or control outbreaks.

Outlines:

**AAS:
Equine Studies**

General Education:

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Science	3
Heritage/Humanities	3
Written Communication	3
Total General Education Requirements	15

Technical Core

	Computer/Digital Literacy	0-3
EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 125	Equine Health and Nutrition	3
EQS 130	Introduction to the Racing Industry	3
EQS 200	Lameness in Racehorses	3
EQs 240	Equine Legal and Business Principles	3
	Technical Electives	6
	Total Technical Core	28-31

Jockey Track:

EQS 111	Introduction to Riding Racehorses	1
EQS 112	Racehorse Riding Skills I	4
EQS 113	Racehorse Riding Skills II	4
EQS 212	Racehorse Riding Principles	3
EQS 213	Racehorse Riding Techniques	2
EQS 215	Life Skills for Jockeys	3
	Subtotal Jockey Track	17
	Total Jockey Track AAS	60-63

Horsemen's Track:

EQS 118	Equine Bloodstock	3
EQS 121	Introduction to Breaking and Training Racehorses	1
EQS 122	Yearling Breaking and Management	3
EQS 123	Breaking and Prepping Two-Year Olds	3
EQS 223	Training Principles and Practices	4
EQS 225	Life Skills for Horsemen	3
	Subtotal Horsemen's Track	17
	Total Horsemen's Track AAS	60-63

Approved Technical Electives

Any EQM or EQS course from alternate option. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA 101	Elementary Spanish	4
EQM120	Introduction to Commercial Breeding Practices	3
EQS 118	Equine Bloodstock	3
EQS 299	Equine Cooperative Education (internship)	1-9

Equine Studies Diploma**General Education Core**

Area I	(Written Communication, Oral Communications, or Heritage/Humanities)	3
Area II	(Social/Behavioral Science, Natural Sciences, or Quantitative Reasoning)	3
	General Education Total	6

Technical Core

	Computer/Digital Literacy	0-3
EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3

EQS	110	Basic Equine Physiology	3
EQS	125	Equine Health and Nutrition	3
EQS	130	Introduction to the Racing Industry	3
EQS	200	Lameness in Horses	3
EQS	240	Equine Legal and Business Principles	3
EQS	299	Equine Cooperative Education (1 credit hour min. required in diploma. Additional credits may count toward elective credit)	1
		Technical Electives	6
		Total Technical Core	29-32

Jockey Track:

EQS	111	Introduction to Riding Racehorses	1
EQS	112	Racehorse Riding Skills I	4
EQS	113	Racehorse Riding Skills II	4
EQS	212	Racehorse Riding Principles	3
EQS	213	Racehorse Riding Techniques	2
EQS	215	Life Skills for Jockeys	3
		Subtotal Jockey Track	17
		Total Jockey Track Diploma	52-55

Horseman Track:

EQS	118	Equine Bloodstock	3
EQS	121	Introduction to Breaking and Training Racehorses	1
EQS	122	Yearling Breaking and Training	3
EQS	123	Breaking and Training Yearlings/Two Year Olds	3
EQS	223	Training Principles and Practices	4
EQS	225	Life Skills for Horsemen	3
		Subtotal Horseman Track	17
		Total Horseman Track Diploma	52-55

Approved Technical Electives

Any EQM or EQS course from alternate option. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA	101	Elementary Spanish	4
EQM	120	Introduction to Commercial Breeding Practices	3
EQS	118	Equine Bloodstock	3
EQS	299	Equine Cooperative Education (internship)	1-9

Certificate:

Exercise Rider:

EQS	101	Introduction to the Thoroughbred	3
EQS	103	Racehorse Care	1
EQS	104	Racehorse Care Lab	3
EQS	110	Basic Equine Physiology	3
EQS	111	Introduction to Riding Racehorses	1
EQS	112	Racehorse Riding Skills I	4
EQS	113	Racehorse Riding Skills II	4
EQS	130	Introduction to the Racing Industry	3
		Total Credits	22

Racehorse Care and Breaking

EQS	101	Introduction to the Thoroughbred	3
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EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 121	Introduction to Breaking and Training Racehorses	1
EQS 123	Breaking and Training Yearlings/Two Year Olds	3
EQS 125	Equine Health and Nutrition	3
EQS 130	Introduction to the Racing Industry	3
	Total Credits	20

Equine Industry Workforce

EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab OR	3
EQS 299	Equine Cooperative Education (internship)	(3)
EQS 110	Basic Equine Physiology	3
EQS 130	Introduction to the Racing Industry	3
EQS 200	Lameness in Horses	3
	Total Credits	16

Veterinary Assistant

ENG 101	Writing I	3
BIO 112	Introduction to Biology	3
CHE 140	Introductory General Chemistry	3
CHE 145	Introductory General Chemistry Lab	1
COM 181	Basic Public Speaking	3
MAT 116	Technical Mathematics	3
AGR 240	Introduction to Animal Science	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 299	Equine Cooperative Education (internship)	1
	Total Credits	27

Dates of Actions:

Approved: December 2006

Revised: October 2008, March 2011, August 2011, April 2012, December 2012