

NATIONAL DIPLOMA: GAME RANCH MANAGEMENT

Qualification code: NDGR04 - NQF Level 6

Campus where offered: Pretoria Campus (day classes)

Last year of new intake: 2019

Teach-out (phase-out) date: 31 December 2023

Students registered for this qualification should complete their studies according to the teach-out date prescribed for the qualification, subject to the stipulations of Regulation 3.1.11 and 3.1.13 in the Students' Rules and Regulations.

Information on phased-out programmes can be obtained from the TUT website, www.tut.ac.za.

CURRICULUM

Consult the 2019 Faculty Prospectus for the full contents of the qualification.

FIRST YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
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FIRST SEMESTER

GRM101T	Game Ranch Management I	(0,100)	
GRY101T	Game Ranch Ecology I	(0,100)	
GSC101T	Game Science I	(0,100)	
RLS101T	Rangeland Studies I	(0,100)	

TOTAL CREDITS FOR THE SEMESTER: 0,400

SECOND SEMESTER

Any two subjects from the first semester should be passed for conditional acceptance.

GRE101T	Game Ranch Economics I	(0,100)	
GRM201T	Game Ranch Management II	(0,100)	Game Ranch Management I
GRY201T	Game Ranch Ecology II	(0,100)	Game Ranch Ecology I
GSC201T	Game Science II	(0,100)	Game Science I
SSC101C	Soil Science I	(0,100)	

Field Trip 1 – Limpopo Province

TOTAL CREDITS FOR THE SEMESTER: 0,500

TOTAL CREDITS FOR THE FIRST YEAR: **0,900**

SECOND YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
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FIRST SEMESTER

CUS101T	Computer Usage I	(0,100)	
GRE201T	Game Ranch Economics II	(0,125)	Game Ranch Economics I
GRY301T	Game Ranch Ecology III	(0,125)	Game Ranch Ecology II
GSC301T	Game Science III	(0,125)	Game Science II

plus one of the following subjects:

GLN101T	Game Lodge Management I	(0,125)	
GUN101T	Game Utilization I	(0,125)	



Field Trip 2 – Bushveld

TOTAL CREDITS FOR THE SEMESTER: 0,600

SECOND SEMESTER

GHM101T	Game Health Management I	(0,125)	
GRE301T	Game Ranch Economics III	(0,125)	Game Ranch Economics II
GRM301T	Game Ranch Management III	(0,125)	Game Ranch Management II

plus one of the following subjects:

GLN201T	Game Lodge Management II	(0,125)	Game Lodge Management I
GUN201T	Game Utilization II	(0,125)	Game Utilization I

Field Trip 3 – Limpopo Province

TOTAL CREDITS FOR THE SEMESTER: 0,500

TOTAL CREDITS FOR THE SECOND YEAR: **1,100**

THIRD YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
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FIRST SEMESTER

EXP1GRM	Work-Integrated Learning I (on completion of all subjects)	(0,500)	
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TOTAL CREDITS FOR THE SEMESTER: 0,500

SECOND SEMESTER

EXP2GRM	Work-Integrated Learning II	(0,500)	Work-Integrated Learning I
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TOTAL CREDITS FOR THE SEMESTER: 0,500

TOTAL CREDITS FOR THE THIRD YEAR: **1,000**

TOTAL CREDITS FOR THE QUALIFICATION: **3,000**

SUBJECT INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular subject. At time of publication, the syllabus content was defined as follows:

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COMPUTER USAGE I (CUS101T)

CONTINUOUS ASSESSMENT

(Subject custodian: End User Computing Unit)

Students have to acquire theoretical knowledge (computing fundamentals) and practical skills as an end-user in operating systems and MS Office Suite applications (MS Word, MS Excel and MS PowerPoint) on an introductory level. Students will do online and computer based tests. The modules are mapped with SAQA and IC3 Essential Skills for Digital Literacy (international certification). (Total tuition time: ± 40 hours)



F**FIELD TRIP 1 – LIMPOPO PROVINCE**

(Subject custodian: Department of Nature Conservation)

Visits to game ranches and important role-players in the game industry (Thaba Tholo game auction). Students are also exposed to surveying techniques for veld management purposes and freshwater systems. (Duration: five to ten days)

FIELD TRIP 2 – BUSHVELD

(Subject custodian: Department of Nature Conservation)

This field trip is undertaken by third-semester students either enrolled for Game Ranch Ecology III and/or Game Utilisation I. The venue varies and will be announced. This field trip exposes students to habitat analysis and game utilisation on a game farm. The field trip focuses on different vegetation survey methods and various aspects relating to the hunting industry. Practical hunting, skinning and capping of game form an integral part of this training excursion. Other activities can be arranged on an ad hoc basis. (Duration: seven to ten days)

FIELD TRIP 3 – LIMPOPO PROVINCE

(Subject custodian: Department of Nature Conservation)

This field trip is undertaken by fourth-semester students and comprises a vital component of the training in the subject Game Ranch Management III. The Venetia Nature Reserve and Kruger National Park are visited. Students are exposed to management techniques for the intensive breeding of roan antelope and the management of lions, wild dogs, white rhinos and elephants at relatively smaller reserves. Practical training is given for lion and hyena call-ups, radio telemetry, GPS, map development, bird ringing and trophy carcass preparation. Reserve management, elements of an ecological management plan and adaptive management are also discussed. (Duration: nine days)

G**GAME HEALTH MANAGEMENT I (GHM101T)****1 X 3-HOUR PAPER**

(Subject custodian: Department of Nature Conservation)

Ecology of the important diseases. External and internal parasites. Management and prevention of diseases on a game ranch. Nutrition supplementation. Basic execution of post-mortems. (Total tuition time: ± 75 hours)

GAME LODGE MANAGEMENT I (GLN101T)**1 X 3-HOUR PAPER**

(Subject custodian: Department of Nature Conservation)

Introduction to tourism as well as ecotourism, and what motivates a tourist to visit South Africa. Types of transportation, accommodation, attractions, and kinds of entertainment as a pathway to sustainability. Rural tourism, cultural aspects, as well as the role communities can play. The lodge manager and his/her responsibilities, and developing and constructing lodges. Ecological impact of a lodge, marketing and the communication process (staff and clients). (Total tuition time: ± 75 hours)

GAME LODGE MANAGEMENT II (GLN201T)**1 X 3-HOUR PAPER**

(Subject custodian: Department of Nature Conservation)

Client expectations. Communication with the surrounding communities, i.e. intercultural communication. Important fields such as interpretation and environmental education, are shown as tools to effect a successful stay. Designing activities for both adults and children, keeping in mind the dynamics of clients. Interpretation as a management tool on a game ranch, both theoretically and practically, i.e. interpretation techniques. Trail development and construction. The ecological and psychological aspects of interpretation. Field guiding as a tool to a successful walk with clients and a memorable stay. (Total tuition time: ± 75 hours)

GAME RANCH ECOLOGY I (GRY101T)**1 X 3-HOUR PAPER**

(Subject custodian: Department of Nature Conservation)

Ecobiological principles pertaining to game ranch management. Components of an ecosystem and important interrelationships. Population regulation, limiting factors and their application on a game ranch. (Total tuition time: ± 75 hours)

GAME RANCH ECOLOGY II (GRY201T)**1 X 3-HOUR PAPER**

(Subject custodian: Department of Nature Conservation)

Freshwater management. Designing and managing dams on a game ranch. Management of rivers and ground-water. Climatology and its application to game ranch management. (Total tuition time: ± 75 hours)



- GAME RANCH ECOLOGY III (GRY301T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Biomes - grassland and savannah. Adaptive management, veld condition assessment, carrying capacities and vegetation monitoring on a game farm. Vegetation classification and description. Managing problem plants. Fire types and behaviour – implementation of controlled burning programme. (Total tuition time: ± 75 hours)
- GAME RANCH ECONOMICS I (GRE101T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Labour legislation applicable to a game ranch. Legislation applicable to game ranch management (ownership of wild animals). Law enforcement and securing integrity. Administrative procedures. (Total tuition time: ± 75 hours)
- GAME RANCH ECONOMICS II (GRE201T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Aims of accounting. Financial statements, analysis and interpretation of ranching results. Production economics and cost principles. Budgets and control. Financial planning and risk decision making on a game ranch. (Total tuition time: ± 75 hours)
- GAME RANCH ECONOMICS III (GRE301T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Marketing management and the marketing environment. Consumerism and market segmentation. Marketing information and research process. Marketing instruments. (Total tuition time: ± 75 hours)
- GAME RANCH MANAGEMENT I (GRM101T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Planning and management of infrastructure on a game ranch: roads, fences and camps. Environmental impact assessment. Techniques: welding, erecting fences, water provision and basic vehicle maintenance. (Total tuition time: ± 75 hours)
- GAME RANCH MANAGEMENT II (GRM201T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 History of conservation and wildlife management internationally, in Africa and Southern Africa. Conservation and wildlife philosophies. International and national conventions and organisations. Wildlife utilisation ethics. Game harvesting and sustainable utilisation. Hunting and handling of carcasses and trophies. Processing of venison. (Total tuition time: ± 75 hours)
- GAME RANCH MANAGEMENT III (GRM301T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Management of large charismatic megafauna on game farms. The management of mega-herbivores (elephants, rhinos and hippos), large carnivores and expensive game (e.g. roan and sable antelope) on game farms. Game capture and translocation, boma housing, release, monitoring and ultimately management. The excursion to Limpopo is designed to reinforce the lessons learned in theory. (Total tuition time: ± 75 hours)
- GAME SCIENCE I (GSC101T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Population dynamics of wildlife (age structure, sex ratios, mortality and natality), and its application on a game ranch. Monitoring of wildlife populations on a game ranch – numbers, distribution, densities and condition. The principles of data collection, processing and interpretation. (Total tuition time: ± 75 hours)
- GAME SCIENCE II (GSC201T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Overview of important vertebrates in game ranching. Anatomy and physiology of the different feeding groups. Reproduction and practical application. Feeding and application on a game ranch. Genetic principles and considerations on a game ranch. Reproduction and practical application. (Total tuition time: ± 75 hours)
- GAME SCIENCE III (GSC301T)** **1 X 3-HOUR PAPER**
(Subject custodian: Department of Nature Conservation)
 Study of animal behaviour, its origins and modern concepts. After reviewing some of the students' ecological knowledge, various aspects of social and territorial behaviour in animals is examined in detail. The balance of the course investigates the social and mating systems, specifically of the antelope and other herbivores that are important for game ranching. (Total tuition time: ± 75 hours)



GAME UTILISATION I (GUN101T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

Different types of utilisation. Safari outfitting. Professional hunting (ethics, guiding). Shooting (shot placement, ballistics, legal considerations). Specialised safaris (bow hunting, game birds). Trophies (SCI and Rowland Ward), field preparation, photography. (Total tuition time: ± 75 hours)

GAME UTILISATION II (GUN201T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

Game translocation, with the emphasis on physical and chemical capturing techniques, tranquilisers, boma management, transport, veterinary considerations, game sales and auctions, insurance and ethics. Game sales. Auctions. Legal considerations. Veterinary considerations. Habitat assessment. Importing wildlife. (Total tuition time: ± 75 hours)

R**RANGELAND STUDIES I (RLS101T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

Plant organs: structure, function of roots, stems and leaves so as to be able to identify plants using field guides on a game ranch. Flora of South Africa: biomes and veld types. Basic veld management principles: plant succession, sour, sweet and mixed veld, veld condition assessment, grazing systems, influence of herbivores on plants and soils, use of fire as a management tool. Basic population ecology principles: birth and death rates, longevity, life tables, population growth, population density and population organisation. (Total tuition time: ± 75 hours)

S**SOIL SCIENCE I (SSC101C)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

Basic field geology, with emphasis on rock identification, and understanding the role of geology in ecosystems and as soil forming factor. Application of soil science principles and knowledge in wildlife area management. Understanding soil forming factors. The study of characteristics of soil and application thereof in wildlife areas. Practical soil classification, soil profile description and soil mapping for wildlife areas. (Total tuition time: ± 75 hours)

W**WORK-INTEGRATED LEARNING I (EXP1GRM)****WORK-INTEGRATED LEARNING****WORK-INTEGRATED LEARNING II (EXP2GRM)****WORK-INTEGRATED LEARNING****(Subject custodian: Department of Nature Conservation)**

Work-integrated learning is done with an accredited employer and is overseen by a mentor and a departmental lecturer. A compulsory syllabus is followed and two reports (progress and final report) must be submitted. Students may be visited at their place of employment. A student may be subjected to a final oral examination at the end of the period. (Total tuition time: six months)

