REF. NO.	C –C.2
TITLE:	CATTLE – DAIRY NUTRITION & PRODUCTION
CATEGORY AND VALUE:	C - 10 CREDITS
NOTIONAL STUDY HOURS:	100

Candidates working towards the designated Certificate in Advanced Veterinary Practice (Cattle Health and Production) will need to complete the A-Professional Key Skills module, the B-Clinical Key Skills module, one other B-module, and the three Cattle C-modules. Upon completion of all the necessary modules, a further synoptic assessment will also be required.

GENERAL GUIDANCE NOTES
Please refer to the General Guidance and Assessment for all Modules document.

STANDARDS
The aim of this module is to enable the candidate to extend and consolidate clinical knowledge and skills gained at undergraduate level, so that they can apply this knowledge to the management of dairy herds and the diagnosis and treatment of diseases of dairy cattle. The candidate will be able to evaluate their own standards of practice and develop strategies for continuous improvement in the future.

LEARNING OUTCOMES
This module will enable the candidate to:

- Gain a sound understanding of the management and monitoring of nutrition in dairy herds.

- Demonstrate the role of the veterinary surgeon in planned cattle health and production

- Explain the aetiology, pathology, diagnosis, differential diagnosis, treatment, prognosis and control of common diseases affecting calves and dairy cows in the UK.

- Describe the husbandry and management of dairy herds in the UK, and evaluate the relative merits of the systems used.

ASSESSMENT STRATEGY FOR THIS MODULE
It is suggested that this module could be assessed by some or all the following methods:

- A **learning diary**, that documents in note form the candidate's experiences over the period that the module is being completed, including critical commentaries upon

at least some of the learning resources used, and describes the application of the learning process to a wide range of cases encountered in practice

- A **case book** of three cases, each of up to 1500 words length. These cases should be selected to demonstrate the candidate's ability to use the competences that have been acquired to cope with a challenging situation, rather than using classic "textbook cases" of particular conditions.

- **Critical review** of one publication in a refereed scientific publication relevant to module content (1,500 - 3,000 words)

MODULE CONTENT

NUTRITION

- An understanding of nutritional requirements and how they are calculated

- Knowledge of the characteristics of the common foodstuffs and their visual assessment

- Feeding systems: including grassland requirements and management, forage crop production, harvesting and storage

- Nutritional problems: their recognition, treatment, prevention and control

- Monitoring of nutrition using milk yield and quality, cow signalment and faecal assessment

THE ARTIFICIALLY REARED CALF - BIRTH TO WEANING

- Problems at birth, passive immunity and colostrum

- Common calf diseases: especially alimentary and respiratory; their epidemiology, recognition and treatment, including rational drug use, prevention and control

THE DAIRY HEIFER - WEANING TO CALVING

- Management of calves at weaning, post weaning diseases

- Normal targets for growth

- Feeding systems, especially grassland requirements and management and forage crop production, harvesting and storage, and growth rate of heifers

- Common diseases at grass: their epidemiology, recognition, treatment, prevention and control

- Common diseases in housed animals: their epidemiology, recognition, treatment, prevention and control

- Normal reproduction in heifers

- Puberty and factors controlling its onset, weight and condition score at service

- Sire selection

- Oestrus-synchronisation, normal pregnancy rates

- Reproductiove problems, congential abnormalities, acyclicity, poor pregnanacy rates

- Normal calving

- Induction of calving

- Dystocia

LACTOGENESIS

- Milk synthesis and its control

- Factors affecting milk yield and composition

HOUSING SYSTEMS

- Different housing systems available, relative costs, advantages and disadvantages