OBJECTIVE					Year 1 & Year 2 activities	(Pre-Residency) 2006	Year 1	Year 2	Year 3
Part I - core elements (45 ECTS points)	**Points, required**	**Time required (days)**	**Time spent on element (by end of Yr2)**	**Remaining time to be devoted to element**	**Work that went towards element ….(& time spent)**				
Introductory aetiology, epidemiology, diagnostics and control of infectious and non-infectious diseases of livestock populations	4	15	15	0	MSc. Epidemiological Aspects of Laboratory Investigations (2 days) PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health (8 days) Epidemiology & Animal Health Economics – *Introduction to Veterinary Epidemiology (5 days)*	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – *Introduction to Veterinary Epidemiology* Veterinary Public Health – *Control of Food Safety*	MSc: Epidemiological Aspects of Laboratory Investigations Epidemiology & Control of Communicable Diseases PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health		
Optimisation of animal welfare during production, transport and slaughter	2	5	2	3	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety (2 days)*	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety*		RVC Distance Learning short courses: Animal Welfare - *Animal Transport & Slaughter* *Farm Animal Welfare of Intensively Farmed Ungulates*	Self directed study assisted by supervisor
Principles and concepts of population medicine, with emphasis on quantitative veterinary epidemiology	3	10	10	0	MSc: Epidemiology in Context (2.5 days) Statistics for Epidemiology and Public Health (7.5 days)	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – *Introduction to Vet. Epidemiology*	MSc: Extended Epidemiology PGDipl. (Distance Learning): Statistical Methods for Veterinary Epidemiology	Application through HPAI project (see above)	
Principles and concepts of food science	3	10	8	2	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety (8 days)*	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety*			***See Part V*** - Food Safety placement Self directed study assisted by supervisor
Principles and operation of food safety and food quality management	3	10	5	5	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety (5 days)*	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety*			***See Part V*** - Food Safety placement Self directed study assisted by supervisor
Biostatistics as related to VPH and disease and control problems encountered	9	30	30	0	MSc: Statistical Methods in Epidemiology (15 days) PGDipl. (Distance Learning): Statistical Methods for Veterinary Epidemiology (15 days)	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – *Introduction to Statistics*	MSc: Statistics for Epidemiology and Public Health Statistical Methods in Epidemiology PGDipl. (Distance Learning): Statistical Methods for Veterinary Epidemiology Surveillance & Investigation of Animal Health	Application through HPAI project	Application through additional projects
Familiarity with information and communication technology as related to VPH	3	10	10	0	MSc: Communication skills in epi (2days) VLA Placement (6 days) Defra HPAI project (2 days)			Application through HPAI project	Application through additional projects
Data handling and management for veterinary public health	3	10	10	0	MSc: Data Management Using Epidemiological Data (2.5 days) RVC- Microsof Access course (0.5 days) GIS course (2 days) VLA Placement (5 days)		MSc:	Application through HPAI project	Application through additional projects
Scientific writing and presentation of results from investigation	3	10	10	0	MSc: Communication skills in epi (2days) Scientific Writing (1 day) VLA presentation (2.5days) RVC presentation (1.5 days) RVC Poster (2 days) ISVEE poster (1 day)		RVC residents induction training programme.	Writing of 1-2 Manuscripts relating to project work (See HPAI project outline above)	Writing of 2 Manuscripts
Veterinary and scientific ethics, professionalism in VPH	2	5	5	0	MSc: Ethics seminars (1 day) VLA Ethics committee (0.5 days) RVC ethics approval (0.5 days) Interaction with Defra Minister justifying contacting farmers for Housing Order study (3 days)		Exposure through various projects	RVC Animal Welfare course module – *Veterinary ethics and*	
General concepts & principles of VPH	4	15	15	0	Assisting with RVC undergraduate VPH course (1.5 days) PGDipl. (Distance Learning): Veterinary Public Health – *Principles of veterinary Public* OIE placement- International VPH in action (6.5 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Principles of veterinary Public Health*	MSc: Public Health Lecture Series Exposure through various projects	Exposure through various projects	
Principles & concepts of human and animal health economics	2	10	10	0	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – Principles of MSc: Animal Health Econimcs course & economic aspects of scenario tree work (2 days).	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – *Principles of Economic Analysis*		MSc: Animal Health Economics	***See Part V*** - DEFRA cost-benefit analysis of surveillance systems

Principles, concepts and methods of risk assessment	3	10	10	0	MSc: Surveillance of Animal Health & Production (1 day) PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health (4 days) Veterinary Public Health – *Introduction to risk Analysis &Risk assessment (3 days)* EU AI Risk Assessment Work (2 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Introduction to risk Analysis &Risk assessment*	MSc: Surveillance of Animal Health & Production PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health	MSc: Applied Risk Assessment & Management Application through HPAI project	***See Part V***- HPA placement
Awareness of EU and international legislation in relation to VPH	3	10	10	0	VLA Placement (4 days) Defra HPAI project (2 days) EU AI Risk Assessment Work (2days) EU AI surveillance regulations for Scenario tree work (2 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Principles of veterinary Public Health*	Application through HPAI project	Self directed study of EFSA, SCFCAH and DGSANGO websites assisted by supervisor	
Part II - Population Medicine subspeciality elements (45 ECTS points)							Diverse aspects of Veterinary Population Medicine discussed in weekly epidemiology group seminars	Diverse aspects of Veterinary Population Medicine discussed in weekly epidemiology group seminars	Diverse aspects of Veterinary Population Medicine discussed in weekly epidemiology group seminars
Principles and procedures for field trial design and study design, conduct and interpretations (including data collection, data processing, interpretation and management)	3	10	10	0	Defra HPAI Housing Order MSc: Extended Epidemiology (2 days) Statistics for Epidemiology and Public Health (2 days) MSc project- targeting BVD surveillance study design (7 days)			Application through HPAI project	
Concepts, principles and applications of quantitative veterinary epidemiology (special emphasis on diagnostic test evaluation, sampling procedures, observational analytical studies, questionnaire-based surveys, disease modelling)	11	40	40	0	Defra HPAI project (20 days) MSc: Extended Epidemiology (7 days) Epidemiological Aspects of Laboratory Investigations (3 days) Statistics for Epidemiology and Public Health (3 days) AI Scenario tree work (7 days)			Application through HPAI Project	
Procedures and applications of qualitative and quantitative risk analysis (risk assessment, risk management and risk communication) of animal diseases and residues or contaminants at farm level	4	15	15	0	EU AI Risk Assessment Work (5days) Use of EU AI RA (Pfeiffer et al.) (3 days) MSc: Applied Risk Assessment course within MSc Vet Epi (7 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety & Introduction to risk Analysis &Risk assessment*	MSc: Surveillance of Animal Health & Production PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health	Application through HPAI project MSc: Applied Risk Assessment & Management VLA based work	***See Part V***- HPA placement
The population dynamics of infections and intoxications, including disease modelling	3	10	10	0	MSc: Modelling & Dynamics of Infectious diseases (10 days)		PGDipl. (Distance Learning):	Application through HPAI project MSc: Modelling & Dynamics of Infectious diseases Epidemiology & Control of Non-Communicable Diseases	
Concepts, principles and applications of disease control programmes as well as of good hygiene practices, sanitation and disinfection procedures	3	10	10	0	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety(2 days)* Surveillance & Investigation of Animal Health (4 days) Defra HPAI project (4 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety*	MSc: Surveillance of Animal Health & Production Epidemiology & Control of C PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health	Application through HPAI project	***See Part V***- Food safety placement
Intervention studies and decision support modelling	2	5	5	0	MSc: Modelling & Dynamics of Infectious diseases (2 days) Extended Epidemiology (2 day) MSc: Epi & Control of Communicable Disease module (1 day)		MSc:	MSc: Modelling & Dynamics of Infectious diseases Application through HPAI project	
Application of animal health economics (e.g. disease loss estimations, cost-benefit calculations) decision support modelling, decision tree analysis	4	15	15	0	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – The Use of Economic Tools in Veterinary epidemiology (4 days) MSc: Animal Health Econimcs course & economic aspects of scenario tree work (11 days).	PGDipl. (Distance Learning): Epidemiology & Animal Health Economics – *The Use of Economic Tools in Veterinary epidemiology*		MSc: Animal Health economics	***See Part V***- DEFRA cost-benefit analysis of surveillance systems

Issues related to epidemiology for policy makers, EU and national legislation regarding animal health and welfare, as well as public health and food safety.	3	10	10	0	VLA placement (3 days) Defra HPAI project (2 days) OIE placement (5 days)		MSc:	Self directed study of EFSA, SCFCAH and DGSANGO websites assisted by supervisor	***See Part V***- DEFRA cost-benefit analysis of surveillance systems
Further aetiology, epidemiology, diagnostics and control of infectious and non-infectious diseases of livestock populations, either monofactorial or multifactorial in nature (specifically including zoonoses originating from livestock populations and those infections which can be raw animal product and/or food borne)	6	20	20	0	VLA placement (10 days) MSc: Epi & Control of Communicable Disease module (5 days) AI Scenario tree work (5 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Control of food Safety*	MSc course element 3 MSc: Surveillance of Animal Health & Production PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health	MSc: Applied Risk Assessment & Management Application through HPAI project Self directed study assisted by supervisor	***See Part V***- HPA placement
Hazard identification – recognition and workings of disease problems as they occur in livestock populations as related to the discipline; outbreak investigation.		shared with above	shared with above			PGDipl. (Distance Learning): Veterinary Public Health – *Principles of Veterinary Public health*	MSc: Surveillance of Animal Health & Production Pg Diploma module 4 See Part III- DEFRA project on European AI outbreaks	Self directed study assisted by supervisor	***See Part V***- HPA attachment
Design, implementation and evaluation of monitoring and surveillance systems regarding animal diseases (including zoonoses and food-borne diseases)	6	20	20	0	VLA placement (20 days)	PGDipl. (Distance Learning): Veterinary Public Health – *Current Issues in Veterinary Public Health*	MSc: Surveillance of Animal Health & Production PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health	Application through HPAI project	***See Part V***- DEFRA cost-benefit analysis of surveillance systems
Principles and applications of tracking and trading of animal diseases (including zoonoses and food-borne diseases)		shared with above	shared with above			PGDipl. (Distance Learning): Veterinary Public Health – *Current Issues in Veterinary Public Health*	MSc: Surveillance of Animal Health & Production PGDipl. (Distance Learning): Surveillance & Investigation of Animal Health VLA AI project	Application through HPAI project Self directed study assisted by supervisor	
Concepts, principles and applications of pre-harvest quality management programmes (including good manufacturing practice codes, HACCP, total quality management, ISO)	2	5	2.5	2.5	PGDipl. (Distance Learning): Veterinary Public Health – *Control of Food Safety (2 days)* MSc: Quality Assurance Systems seminar (0.5 day)	PGDipl. (Distance Learning): Veterinary Public Health – *Control of Food Safety*	MSc: Public Health Lecture Series		Self directed study assisted by supervisor
Part III – advanced level subspeciality modules (36 ECTS points) Further aetiology, epidemiology, diagnostics and control of infectious and non-infectious diseases of livestock populations, either monofactorial or multifactorial in nature (specifically including zoonoses originating from livestock populations and those infections which can be raw animal product and/or food borne) Design, implementation and evaluation of monitoring and surveillance systems regarding animal diseases (including zoonoses and food-borne diseases)	**36**	**145**	**145**	0	MSc: Advanced Statistical Methods in Veterinary Epidemiology (15 days) VLA placement (65 days) AI Scenario tree project (40days) MSc project- targeting BVD surveillance (25 days)		MSc:	Optional units on MSc not undertaken during previous course of study MSc research project Consisting of approx. 6 weeks research and 2 weeks write up time. Topic could follow on from VLA avian disease work or HPAI project	
Part IV – research element (36 ECTS points)	**36**	**145**	**116**	29	Defra Housing Order project (50 days) Housing Order project (66 days)			HPAI Project (main project – duration appox. 30 weeks, see above) Fieldwork to commence September 2008	
Part V – elective elements (18 ECTS points)	**18**	**75**	**63.5**	11.5	OIE placement (35 days) MSc project- targeting BVD surveillance (18.5 days) AI Scenario tree project (10 days)				Attend elements of Food Safety course (Norwegian School of Veterinary Science) 2 month placement to HPA to gain experience of risk assessment with regard to public health DEFRA placement to gain experience within economics relating to the cost-benefit analysis of surveillance systems Further electives to be decided
Totals	**184**	**685** days required	**632** days done	**53** days remaining					