Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist (CAB)
Course unit title	 PG CABW – CAB M1 - Ethology of companion animals Part 1.1 Introduction to ethology and the scientific study of CABW Part 1.2 Applied ethology
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co- requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. The student should have a good command of the English language.
Level of course unit	Postgraduate level 6/7
Language	 Course materials: English Formative assignments: English Summative assignment: English
Year of study – date course unit is delivered	Academic year 2021-2022
Number of ECTS credits allocated to the unit	 8 credits = 200 study hours Part 1: Introduction to ethology and the scientific study of CABW – 3 credits Part 2: Applied Ethology – 5 credits
General course aims	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological



	 behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of key learning outcomes of the unit	 Introducing the concepts and essential subject matters necessary for an in-depth understanding of the biological bases of animal behaviour in general and the biology, ontogeny, phylogeny and ethogram of companion animals in particular. Develop an understanding of human animal interactions and appraisal of how these affect the behaviour and welfare of companion animals as a basis to advise professionals and non-professionals on how to achieve good animal welfare and human-animal relationships and prevent problems.
Specific learning outcomes of the course unit	 Students will know and understand the subjects covered in this module and be able to: 1.1 Demonstrate the current understanding of the biology and ethology of dogs, cats and the species of their choice from the category's small mammals or horses. 1.2 Interpret communicative behaviour. Recognise, evaluate and report on the behavioural state of an animal, including normal behaviour and behaviour indicative of a positive and negative emotional state and ill-health. 1.3 Demonstrate an understanding of how the processes of behavioural ontogeny and phylogeny affect the behaviour of specific species, evaluate their importance for the development of normal behaviour, the prevention of abnormal behaviour and optimizing individual welfare. 1.4 Critically evaluate the interaction between 'nature' and 'nurture' in general and how these influence the development of behavioural disorders in domestic animals.



1.5 Express an understanding of how the processes of domestication, natural and artificial selection affect the behaviour or animals. 1.6 Express an understanding of the different attitudes of humans towards companion animals throughout the history and in the present society. How attitudes towards companion animals affect the human animal bond/relationship, human-animal interactions, the behaviour and welfare of people and companion animals in a variety of situations. Course contents • The field of applied ethology and its importance in relation to animal welfare. • The principles of ethology including: general principles of behaviour genetics and the evolution of behaviour. The process of domestication and its effect on behaviour. The concept of dominance. • The biology and behaviour of dogs, cats, small mammals and horses including: body structures, movement, sensory physiology and abilities, motivation and organization of behaviour, nutrition and health. • The ontogeny and phylogeny of behaviour of dogs, cats, small mammals and horses, including: the process of domestication of the specific species, sensitive periods, socialisation, attachment, breeds and breed differences. Behavioural development. The effect on the behaviour of the specific species, sensitive periods, socialisation, attachment, breeds and breed differences. Behavioural development. The effect on the behaviour of the specific species resulting from the interaction between biological, genetic, environmental influences and the domestic environment. • The ethogram of normal behaviour of dogs, cats, small mammals and horses, including: communicative behaviour, eliminative behaviour, ingestive behaviour, eliminative behaviour indicative of a positive and negative emotional state. • Anthrozoology the science studying the interaction between humans and animals and its relevance to companion animals, including: the human-animal bond and its effect on the behaviour and welfare of humans and companion animals, including: the human-animal bond		
to animal welfare. The principles of ethology including: general principles of behaviour genetics and the evolution of behaviour. The process of domestication and its effect on behaviour. The concept of dominance. The biology and behaviour of dogs, cats, small mammals and horses including: body structures, movement, sensory physiology and abilities, motivation and organization of behaviour, nutrition and health. The ontogeny and phylogeny of behaviour of dogs, cats, small mammals and horses, including: the process of domestication of the specific species, sensitive periods, socialisation, attachment, breeds and breed differences. Behavioural development. The effect on the behaviour of the specific species resulting from the interaction between biological, genetic, environmental influences and the domestic environment. The ethogram of normal behaviour of dogs, cats, small mammals and horses, including: communicative behaviour, social behaviour, locomotive behaviour, maternal behaviour, behaviour, locomotive behaviour, maternal behaviour, behaviour indicative of a positive and negative emotional state. Anthrozoology the science studying the interaction between humans and animals and its relevance to companion animal behaviour and welfare. The psychology of the human-animal bond and its effect on the behaviour and welfare of humans and companion animals, including: the human animal bond in historical and cultural perspective and tests and measurements to evaluate the human-animal bond.		domestication, natural and artificial selection affect the behaviour or animals. 1.6 Express an understanding of the different attitudes of humans towards companion animals throughout the history and in the present society. How attitudes towards companion animals affect the human animal bond/relationship, human-animal interactions, the behaviour and welfare of people and companion animals
	Course contents	 to animal welfare. The principles of ethology including: general principles of behaviour genetics and the evolution of behaviour. The process of domestication and its effect on behaviour. The concept of dominance. The biology and behaviour of dogs, cats, small mammals and horses including: body structures, movement, sensory physiology and abilities, motivation and organization of behaviour, nutrition and health. The ontogeny and phylogeny of behaviour of dogs, cats, small mammals and horses, including: the process of domestication of the specific species, sensitive periods, socialisation, attachment, breeds and breed differences. Behavioural development. The effect on the behaviour of the specific species resulting from the interaction between biological, genetic, environmental influences and the domestic environment. The ethogram of normal behaviour of dogs, cats, small mammals and horses, including: communicative behaviour, social behaviour, sexual behaviour, ingestive behaviour, eliminative behaviour, locomotive behaviour, maternal behaviour, behaviour indicative of a positive and negative emotional state. Anthrozoology the science studying the interaction between humans and animals and its relevance to companion animal behaviour and welfare. The psychology of the human-animal bond and its effect on the behaviour and welfare of humans and companion animals, including: the human animal bond in historical and cultural perspective and tests and measurements to
	Planned learning activities	Distance learning consisting of:
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	Reading lists
	 Peer-to-peer learning activities
	Self-assessment quizzes
Assessment methods and	Individually composed formative assignment.
criteria	 Individually composed summative assignment.
	Grading:
	To pass the module the student has to score 50% on a total of
	20 points (formative + summative assignment).
	 The formative assignment is scored 'sufficient' or 'fail'.
	A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students
	who do not submit the assignment at the required
	deadline score 0/1 on this part.
	 The total score of the summative assignment is 19
	points in the first chance.
	,
	If a student fails the module:
	Students failing the module can take a second chance
	in the next exam period.
	 In the second chance the student only has to submit
	the summative assignment. The formative assignment
	does not have to be retaken. The summative
	assignment second will be scored on a total of 20
	points.
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	A tolerance cannot be applied to this module (see the
	Education and examination regulations).
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Essential study materials	Course materials provided by the lecturers.
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Recommended or required	See reading list provided in the course syllabus.
reading	5 11 5 1 1 2 1 2 2 1 2 2 1 2 2 1 2 2 2 2
Unit coordinators	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David
	Appleby (appleby@abklinikka.com).
Lecturers	David Appleby
	Anouck Haverbeke
	Anne McBride
	Jolanda Pluijmakers
	Adinda Sannen
	Anne Seawright
	- Allie Jeawiight
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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist (CAB)
Course unit title	PG CABW – CAB M2 - Learning theory and animal training
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co-requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. The student should have a good command of the English language.
Level of course unit	Postgraduate level 6/7
Language	 Course materials: English Workshops: English MC exam: English Formative assignment: English Summative assignment: English
Year of study – date course unit is delivered	Academic year 2021-2022
Number of ECTS credits allocated to the unit	 6 credits = 150 hours Part 1: Learning theory = 4 credits Part 2: Animal training = 2 credits
General course aims	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological



	 behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of the key learning outcomes of the unit	 Part 1: Learning theory Acquiring and demonstrating an in-depth understanding of learning theory. Be able to explain how the principles underlying learning affect behaviour, emotions and welfare. Be able to explain the theory underlying training techniques, learned problem behaviours and basic behaviour modification techniques. Part 2: Animal training Acquiring the practical skills needed to correctly handle companion animals and modify their behaviour through the appropriate selection and application of training techniques and training equipment. (Dogs and cats (obligatory) and small mammals or horses (optional). Acquiring the communicative skills to provide training instructions.
Specific learning outcomes of the course unit	 Upon successful completion of the module the student will: 1.1 Be able to articulate their understanding of the theory of animal learning, cognitive abilities, training techniques and basic behaviour modification techniques. 1.2 Demonstrate an understanding of the theory underlying learned problem behaviour. 1.3 Understand the rational for the use of different training techniques, training aids and behaviour modification techniques and how they affect behaviour and animal welfare.



	 1.4 Be able to critically assess the strength and weakness of training techniques and training aids and behaviour modification techniques. Propose and justify the selection of the most appropriate technique or training aids used to achieve the formulated training goal or behaviour modification. 1.5 Posses the theoretical knowledge and practical skills to use training techniques and training aids effectively and correctly. 1.6 Be able to develop, review and update training plans for individual animals and their handlers. 1.7 Be able to train animals and instruct and demonstrate to professionals and non-professionals on how to train their animals in accordance with a training plan. 1.8 Advise a system to scientifically evaluate the effectiveness of behaviour modification, set goals and respond appropriately.
Course contents	 The neurobiology of learning and memory. The theory of animal learning, including: habituation, sensitisation, classical conditioning, operant conditioning, stimulus control of behaviour, the integration of learning experiences with emotional processing and resultant behavioural organisation. Animal cognition: insight and social learning, social competence and animal intelligence. Basic procedures and techniques used during a broad range of training techniques and basic behaviour modification techniques including: habituation, systematic desensitization, operant and classical counter conditioning. Practical skills in appropriate handling of companion animals. (Dogs and cats obligatory. One species of choice, small mammals or horses, optional). Observing and interpreting the behaviour of animals and their handlers. How to communicate with the animal and handler and implement the observations in the development of a training plan and during a training session. Developing the skills to apply basic procedures and techniques used during a broad range of training techniques and training aids in practice.
Planned learning activities and teaching methods	 Distance learning consisting of: Online video lectures Reading lists



Online practical workshops consisting of:

- Interpretation of behaviour of animals
- Demonstration/observation of handling and training procedures
- Tutorials on training skills
- Peer-to-peer learning activities and feedback
- Case studies

Assessment methods and criteria

Part 1: Learning theory:

Exam with multiple-choice questions Formative assignment

• Part 2: Animal training:

An individually composed summative assignment. Continuous evaluation during workshop week.

Grading:

- To pass the exam a minimal score of 50% of a maximum score of 20 points is needed.
- To pass for the assignment a minimum of 50% of a maximum score of 20 points has to be achieved.
 The total score of the assignment in the first chance is based on the sum of the score of the formative assignment and the summative assignment (total: 20 points).

The formative assignment is scored 'sufficient' or 'fail'. A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students who do not submit the assignment at the required deadline score 0/1 on this part.

The total score of the summative assignment is 19 points in the first chance.

- Active participation during all online workshops is obligatory to achieve a score of 'sufficient' for continuous evaluation.
- The total scores for this module consist out of the average of the score of the exam and the score of the assignment.

To pass for the module the following conditions apply:

- Pass the exam with a minimal score of 50%.
- Pass the assignment with a minimal score of 50%.
- Obtain a 'sufficient' for continuous evaluation during all online workshop days. Participation during all workshops is obligatory.

If a student fails the module:



	 He can take a second chance for the exam and/or the assignment in the next exam period. In the second chance the student only has to submit the summative assignment. The formative assignment does not have to be retaken. The summative assignment second chance will be scored on a total of 20 points. When a student does not obtain a 'sufficient' for continuous evaluation during the online workshop days, the student has to retake (parts of) the workshop days in the following academic year. A tolerance cannot be applied to this unit (see the Education and examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinators	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>)
Lecturers	Tomas Camps Christine Halsberghe Anouck Haverbeke Jolanda Pluijmakers Josine Warnier
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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW – CAB M3 - The welfare of companion animals
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co-requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. The student should have a good command of the English language.
Level of course unit	Postgraduate level 6/7
Language	Course materials: EnglishFormative and summative assignment: English
Year of study – date course unit is delivered	Academic year 2021-2022
Number of ECTS credits allocated to the unit	4 credits = 100 study hours
General course aims	• This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence.



	 The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of key learning outcomes of the unit	 An in-depth understanding of the scientific principles, essential definitions and the ethological, psychological, physiological concepts underlying the welfare of companion animals. Critically appraise concepts and methods used for the evaluation of animal welfare. Evaluate the welfare and methods used to provide or optimise the welfare of companion animals in a broad range of environments.
Specific learning outcomes of the course unit	 Students will be able to: 1.1 Articulate an understanding of the concept of animal welfare and the different underlying models. 1.2 Identify and critically appraise concepts, methods and welfare indicators used for the evaluation of animal welfare and their practical applications for companion animals. 1.3 Evaluate the welfare of companion animals in a broad range of environments (including issues in the management and training of animals and occurring in clinical practice). 1.4 Evaluate ethical issues arising from assessment of animal welfare and propose practical solutions to professionals and non-professionals to address, alleviate and avoid welfare problems in companion animals.
Course contents	 The key ethological, psychological and physiological concepts of welfare and Quality of life (QoL). The biology of stress. The basic principles and implications for animal welfare including: neuroendocrine, immune

Planned learning activities and teaching methods	system responses and metabolic consequences of short term and long term stress. Health, pain, the social and non-social environment as stressors. Consequences of genetics, stress and experiences during early development on behaviour and temperament. Common methods and indicators used to measure welfare of companion animals their positive aspects and limitations and how to use these practically to assess the welfare of companion animals. Sentience and animal welfare, including: cognitive abilities, coping strategies, predictability and control, motivation and demands, feelings and emotions. Awareness, consciousness and suffering. Welfare considerations in the management, working and training of companion animals and in clinical practice. Welfare needs and common welfare issues in dogs, cat, small mammals and horses. Quality of life of the behavioural patient. Distance learning consisting of: Online video lectures Reading lists
Assessment methods and criteria	 Peer-to-peer learning activities Individually composed assignment(s): formative assignment summative assignment Grading: To pass for the assignment a minimum of 50% of a maximum score of 20 points has to be achieved.

	 To pass for the module the following conditions apply: The student has to score 50% on a total of 20 points for the assignment.
	 If a student fails the module: Students failing the module can take a second chance in the next exam period. In the second chance the student only submits the summative assignment. The formative assignment does not have to be retaken. The summative assignment second chance will be scored on a total of 20 points. A tolerance can be applied to this unit (see the Education and examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinators	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>)
Lecturers	Xavier MantecaJolanda Pluijmakers
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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW CAB M4: Anatomy and physiology and the interaction between health and behaviour
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co-requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. The student should have a good command of the English language.
Level of course unit	Postgraduate level 6/7
Language	Course materials: EnglishMC exam: English
Year of study – date course unit is delivered	Academic year 2021-2022
Number of ECTS credits allocated to the unit	10 credits = 250 study hours
General course learning outcomes	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence.



	 The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of key learning outcome of the unit	Understanding of the neurophysiological and neuropsychological basis of behaviour in mammals.
Specific learning outcomes of the course unit	 After completion of this module: 1.1 Students will have an understanding of the neurophysiological and neuropsychological basis of behaviour of mammals especially of dogs and cats (obligatory) and one category of choice being small mammals or horses. Students will be able to describe the functional anatomy and physiology of the nervous system, the endocrine system, emotional systems, the neurophysiological and emotional basis of pain and will be able to demonstrate an understanding of how these affect behaviour. 1.2 Students will be able to critically evaluate the role of environmental and genetic factors in the development of the nervous system and the role of nutrition on health and behaviour. 1.3 Students will be able to recognize the signs of ill-health and common conditions influencing behaviour. Understand the consequences of medical components and disorders on behaviour and be familiar with the associated veterinary terminology. 1.4 Students will be able to identify when psychopharmacological interventions and other additional therapies are desirable in combination with behaviour modification techniques. 1.5 Students will be able to explain the mode of action of psychopharmacological interventions and additional therapies such as pheromones, nutraceuticals and herbal



	interventions, the rationale for their use/application and the strengths and weaknesses of each and their contraindicators. 1.6 Students understand the ethics and legal position of psychopharmacological intervention. 1.7 Students will be able to critically evaluate issues concerning the safety, efficacy and reliability of complementary and alternative or non-prescription or prescribed therapies or products.
Course contents	 The functional anatomy, physiology and development of the nervous system and its role in mediating behaviour. The functional anatomy and physiology of the endocrine system and its role in mediating behaviour. The neurophysiological and emotional basis of pain. The foundations of human and animal emotions. The anatomy, physiology of the emotional brain and its role in mediating behaviour. The effect of the interaction between genetics and environmental influences on the development of an animal. The role of nutrition in health and behaviour. The mode of actions and rationale for the use/application of psychopharmacology and additional therapies and the strengths and weaknesses of each and their contraindicators. Including nutraceuticals, herbal products, diets and pheromone therapy. Signs of ill health and recognizing medical components that might influence the behaviour and welfare of an animal. Including being familiar with the associated veterinary terminology. Recognizing and differentiating behaviours being indicative of having a possible medical cause from symptoms having other causes.
Planned learning activities and teaching methods	 Distance learning consisting of: Online video lectures Reading lists Review questions
Assessment methods and criteria	Assessment methods and criteria Exam with multiple-choice questions



	 Grading: To pass for the MC exam a minimum of 50% of a maximum score of 20 points has to be achieved.
	 To pass for the module: The final score of the module consists of the score of the MC exam. To pass for the module a minimum score of 50% of a maximum score of 20 points for the MC exam has to be achieved.
	 If a student fails the module: Students failing the module can take a second chance for the MC exam in the next exam period.
	A tolerance cannot be applied to this unit (see the Education and examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinators	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>)
Lecturers	Jon Bowen Christine Halsberghe Christos Karagiannis
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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW – CAB M5: Animal law and ethics
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co- requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. The student should have a good command of the English language.
Level of course unit	Postgraduate level 6/7
Language	 Course material: English Formative assignment: English Summative assignment: English
Year of study – date course unit is delivered	Academic year: 2022-2023
Number of ECTS credits allocated to the unit	4 credits = 100 hours
General course learning outcomes	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon.



	 This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of key learning outcomes of the unit	 Critical appraisal of the concepts of ethical thinking. An understanding of how these affect human-animal interaction, the behaviour and welfare of people and companion animals in a variety of situations. Development of professional ethical thinking and decision making. Developing an understanding of the European (including UK) legislation relating to ownership and the use of animals and to the role and duties of the relevant professionals involved in the animal care sector.
Specific learning outcomes of the course unit	 Students will be able to: 1.1 Explain the most commonly held ethical positions and how they affect the human animal bond, human animal interaction and the welfare of companion animals. 1.2 Critically reflect and justify their own opinion and decision making regarding the use and treatment of companion animals. 1.3 Demonstrate an understanding of the most important legislation regarding the keeping and care of companion animals including animal abuse and the link between animal and human abuse. 1.4 Describe ethical and legal responsibilities and limitations of the role of owners, paraprofessionals, veterinary surgeons and animal behaviour technician and clinical animal behaviourist including the duties associated with the provision of advice, professional liability and client confidentiality. 1.5 Understand the role of national legal and judicial processes including the role of individuals involved in it such as barrister, solicitor, animal welfare officer, expert witness. Including the relevant features of employment law, health and safety legislation and the Data Protection Act as they apply to the practice of clinical animal behaviour. 1.6 Identify and evaluate ethical and legal issues effectively.



Decide upon actions that may be necessary for addressing

	ethical and legal issues related to the role of animal behaviour technician and ability to advise upon and implement guidelines. 1.7 The ability to advise professionals and non-professionals on ethical issues and the implementation of guidelines, taking legal obligations, safety concerns and the legal implications of providing professional advice into consideration.
Course contents	 Basic concepts in ethical thinking, the historical perspective and practical application. Anthrozoology the science studying the interaction between humans and animals and its relevance to companion animal behaviour and welfare. The psychology of the human-animal bond and its effect on the behaviour and welfare of humans and companion animals, including: the human animal bond in historical and cultural perspective and tests and measurements to evaluate the human-animal bond. Broken bonds, including: understanding the experience of pet relinquishment, pet loss and grief. Animal rights and ethical guidelines relating to the use of companion animals, including: the welfare of animals used for science, food, work, assistance, sport and held as pets. The abuse and neglect of companion animals. The link between animal abuse and family violence. European legislation in relation to the ownership and use of animals, the role and duties of the animal behaviour technician, clinical animal behaviourist, veterinary surgeon, paraprofessionals, owners and others within it. Including: legal implications and duties associated with the provision of advice and professional liability and client confidentiality. The implications for the animal behaviour technician, their clients and others regarding employment law, health, safety and data protection legislation.
Planned learning activities and teaching methods	 Distance learning consisting of: Online video lectures Reading lists Peer-to-peer learning activities
Assessment methods and criteria	 Individually composed assignment(s): formative assignment summative assignment.



	Grading:
	 To pass for the assignment a minimum of 50% of a maximum score of 20 points has to be achieved. The total score of the assignment in the first chance is based on the sum of the score of the formative assignment and the summative assignment (total: 20 points). The formative assignment is scored 'sufficient' or 'fail'. A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students who do not submit the assignment at the required deadline score 0/1 on this part. The total score of the summative assignment is 19 points in the first chance. To pass for the module the following conditions apply: The student has to score 50% on a total of 20 points for the assignment. If a student fails the module: Students failing the module can take a second chance in the next exam period for the assignment. In the second chance the student only submits the summative assignment. The formative assignment does not have to be retaken. The total score of the assignment in the second chance is obtained from the result of the summative assignment only (20 points). A tolerance can be applied to this unit (see the Education and examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinators	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>).
Lecturers	Stef Aerts Anthony Podberscek Anne McBride
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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW – CAB M6: Clinical procedures: Introduction to common behaviour problems in companion animals. The theory behind the successful diagnosis and treatment of behaviour cases. • Part 6.1: The diagnosis of common behaviour problems • Part 6.2: The treatment of common behaviour problems
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions should be submitted to the course coordinator before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions CABW'.
Prerequisites and co-requisites	 Students should have a bachelor diploma. Students will study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. Students will have participated in module 1 to 5 or obtained comparable credits elsewhere.
Level of course unit	Postgraduate level 6/7
Language	 Course materials: English Formative assignment part 6.1 and part 6.2: English Summative assignment part 6.1 and part 6.2 English
Year of study – date course unit is delivered	Academic year 2022-2023
Number of ECTS credits allocated to the unit	 Total: 6 credits = 150 hours Part 1: The diagnosis of common behaviour problems in companion animals: 3 credits = 75 hours Part 2: The treatment of common behaviour problems in companion animals: 3 credits = 75 hours
General course aims	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address



welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon.

- This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature.
- Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.

Summary of key learning outcomes of the unit

- Part 1: The diagnosis of common behaviour problems in companion animals:
 - Acquisition of the theoretical background regarding the development of companion animal (dogs, cats, horses, small mammals) behaviour problems including abnormal or pathological behaviour, their effect on welfare, how to prevent and diagnose these, based on the relevant scientific literature and clinical experience.
- Part 2: The treatment of common behaviour problems in companion animals:
 - Acquisition of the theoretical knowledge of the treatment of common behaviour and welfare problems in companion animals (dogs, cats, horses, small mammals). Theoretical knowledge of how to address behaviour problems including abnormal or pathological behaviour and welfare problems of individual animals, through the development of suitable environments, management, the use of psychopharmacology and treatment regimes maximally adjusted to the requirements and circumstances of individual cases to make it likely for the treatment to be effective, based on best practice and scientific evidence.



Specific learning outcomes of the course unit

- Part 1: The diagnosis of common behaviour problems in companion animals
 - 1.1 In-depth knowledge of the scientific literature regarding the development of companion animal behaviour problems, their effect on welfare and how to prevent them.
 - 1.2 Understanding of the essential elements for behavioural diagnosis during the process of behaviour counselling and how to assess multiple aspects of cases presented, such as behavioural development, temperament, functioning of the animal, environment and medical conditions.
 - 1.3 Theoretical knowledge of how to recognise, evaluate and report on the biological state, emotional state and behaviour that most commonly contribute to the caseload of a companion animal behaviour counsellor, including signals and signs indicative of states such as fear, nervousness, aggression, play, relaxation and factors as medical conditions, physiological status, temperament, developmental history, coping strategy.
 - 1.4 Knowledge of the impact of external influences on an animal's behaviour, the problem(s) and areas of concern identified and those for which help is being sought. This to include: immediate surroundings, wider environment, environmental pressures, ethological requirements, previous learning experiences and owner attitude and influence.
- Part 2: The treatment of common behaviour problems in companion animals
 - 2.1 Understanding of the principles and rationales behind the use of the range of behavioural modification techniques. How to select and use those appropriate for individual cases, for the treatment and prevention of common behaviour problems.
 - 2.2 Understanding of how the principles of learning theory are applied to humane training methods to achieve agreed goals. 2.3 Planning and managing humane approaches to addressing inappropriate behaviour, behaviour problems including abnormal or pathological behaviour and welfare problems of companion animals.
 - 2.4 Understanding of how to devise and implement structured behaviour modification and training programs, identify and set realistic goals and time scales for implementation, monitoring progress, assessment of success and the appropriate response to feedback.



- 2.5 Understanding of psychopharmacology and additional therapies. To be able to explain the rationale for their use/application and the strengths and weaknesses of each.
- 2.6 Understand the ethics of psychopharmacological intervention.
- 2.7 Be able to critically evaluate issues concerning the safety, efficacy and reliability of complementary and alternative or non-prescription or prescribed therapies or products.
- 2.8 Be able to justify why a particular treatment regime has been selected to address the problem(s) identified, against any other possible regimes.
- 2.9 Understanding of how clinical animal behaviour related to the management, training, rehabilitation and prevention of behaviour and welfare problems is applied when caring for an animal, assisting or advising other people or organisations.
- 2.10 Identification of the appropriate animal health and welfare legislation, associated codes of practice and other legislation relevant to the cases being considered and communication of this to other people or organisations.
 2.11 Understand the legal position of the behaviour counsellor, veterinary surgeon and others regarding diagnosis, treatment, provision of advice, prescription and use of drugs.

Course contents

- The interaction between health, (problem) behaviour, emotions and the welfare of companion animals.
- The role of motivational emotional systems in the development of behaviour problems.
- The essential elements and requirements for the process of behaviour counselling related to behavioural diagnoses.
 Assessment of the multiple aspects of each case, such as behaviour, temperament, functioning of the animal, environment and medical conditions.
- Causes of common behaviour problems in companion animals, such as: undesirable behaviour, anxiety, fear and phobias related behaviours, aggression and repetitive behaviours. How to identify and critically evaluate causes and contributing factors.
- Methods for gathering and recording information relevant to behavioural diagnosis of behavioural problems and how to critically evaluate that information.
- Relevant aspects of neuroscience, cognitive science, principles of ethology, learning theory in relation to the



- behavioural diagnosis of common welfare and behaviour problems in companion animals.
- Management strategies used in and prior to the treatment of behaviour problems in companion animals.
- The symptoms of ill-health and pain and the interplay between diseases and common conditions influencing behaviour and associated veterinary terminology.
- The behavioural and emotional consequences of medical conditions including pain.
- The evidence for and against a medical component contributing to competing explanations of behaviour.
- The ethics and legal position of the behaviour counsellor, veterinary surgeon and others regarding factors such as, diagnosis and client confidentiality.
- Case studies of common behaviour problems in dogs, cats, horses, small mammals.
- The interactions appropriate in professional relationships and how to apply these in practice.
- The principles of effective counselling and how to apply to facilitate and maintain behavioural change.
- Effective communication skills, in the collection of relevant information and provision of advice when writing reports and behaviour modification programs.
- The common professional, legal, ethical or other issues that need to be considered or may arise before, during and after a consultation and the actions appropriate to address them.
- The construction of appropriately structured treatment regimens that are likely to be effective for the behaviour problems identified.
- Psychopharmacology and the mode of action of the major classes of drugs used in clinical animal behaviour therapy, their role and correct application, constraints and contraindicators to their use.
- The mode of action of other treatments, such as nutrition, pheromones and nutraceuticals in clinical animal behaviour therapy, there role and correct application, constraints and contra-indicators to their use.
- The ethics of psychopharmacological intervention and legal position of the clinical animal behaviourist, veterinary surgeon and others regarding the diagnosis, prescription and use of drugs and provision of advice.
- Appropriate application of the insights of neuroscience, cognitive science and principles of ethology and learning theory to the treatment of common behaviour including abnormal or pathological behaviour and welfare problems in companion animals.



- Common behaviour modification strategies used in the treatment of behaviour problems in companion animals.
- How to identify situations where further action may be necessary, including ways in which compliance with an extended treatment regime may be encouraged, the behaviour modification plan requires alteration and when rehoming or euthanasia are indicated.

Planned learning activities and teaching methods

- Distance learning consisting of:
 - Online video lectures
 - Reading lists
 - Peer-to-peer learning activities: including formative assignments of part 6.1 and 6.2

Assessment methods and criteria

Assessment methods and criteria

Part 6.1: 1 individually composed formative and summative written assignment.

- To pass for the assignment a minimum of 50% of a maximum score of 20 points has to be achieved.
 The total score of the assignment in the first chance is based on the sum of the score of the formative assignment and the summative assignment (total: 20 points).
 - The formative assignment is scored 'sufficient' or 'fail'.
 A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students
 who do not submit the assignment at the required
 deadline score 0/1 on this part.
 - The total score of the summative assignment is 19 points in the first chance.

Part 6.2: 1 individually composed written formative and summative assignment.

- To pass for the assignment a minimum of 50% of a maximum score of 20 points has to be achieved.
 The total score of the assignment in the first chance is based on the sum of the score of the formative assignment and the summative assignment (total: 20 points).
 - The formative assignment is scored 'sufficient' or 'fail'.
 A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students
 who do not submit the assignment at the required deadline score 0/1 on this part.
 - The total score of the summative assignment is 19 points in the first chance.



	 Grading: To pass for the module the following conditions apply: The total score of module 6 is based on the arithmetic average of the summative assignment of part 6.1 and the summative assignment of part 6.2. The student has to succeed in every component meaning: For 6.1: A minimum score of 50% has to be achieved for the assignment. For 6.2: A minimum score of 50% has be achieved for the assignment. A student succeeds in module 6 when the arithmetic average of all components is at least 50%.
	 If a student fails (a part of) the module: Students failing a summative assignment can take a second chance in the next exam period. In the second chance the student only has to submit the summative assignment. The formative assignment does not have to be retaken. The summative assignments second chance of 6.1 and 6.2 will be scored on a total of 20 points.
	 Other requirements and regulations: Penalties will apply for not submitting the assignment in accordance with the requirements described in the course syllabus. More information on these penalties: cf. Course syllabus. A not submitted or not participated assignment will be assigned a score of zero for calculating the overall score or the module. No tolerance can be applied to this unit (see the Education and Examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinator	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>)
Lecturers	David Appleby Christine Halsberghe Anouck Haverbeke Anne McBride



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Course program	Odisee Companion Animal Behaviour and Welfare Program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW – CAB M7: Clinical procedures: Putting theory into practice • Part 7.1: Online workshops • Part 7.2: Case studies
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions should be submitted to the course coordinator before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions CABW'.
Prerequisites and co-requisites	 Students should have a bachelor diploma. Students will study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses. Students will have participated in module 1 to 6 or obtained comparable credits elsewhere.
Level of course unit	Postgraduate level 6/7
Language	 Course materials: English Workshops: English Oral exam: English Formative assignment: English Summative assignments: English
Year of study – date course unit is delivered	Academic year 2022-2023
Number of ECTS credits allocated to the unit	 Total: 6 credits = 150 hours Part 7.1 Online workshops: 1,5 credits Part 7.2 Case studies: 4,5 credits
General course aims	This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard



involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare. Summary of key learning Part 7.1 and 7.2: outcomes of the unit Acquisition of effective counselling and communication skills necessary for the diagnosis and treatment of common behaviour and welfare problems in companion animals (dogs, cats, horses, rabbits and rodents). Acquisition of practical skills in the handling, training and practical application of training aids and of behaviour modification techniques using case studies. Specific learning outcomes of Part 7.1 and 7.2 the course unit 1. Ability to critically evaluate the needs of the relevant species and how these may be provided. 2. Identification of and adherence to the appropriate animal health and welfare legislation, associated codes of practice and other legislation relevant to the animals being considered. 3. Practical application of knowledge related to gathering evidence from all sources of information about the behaviour of companion animals and the problem(s) for which advice is being sought. This might for example be by direct observation, discussion with owner/keeper, assessments supplied by veterinary surgeons or case histories. Critical evaluation of the quality of this evidence, distinguishing between competing causes, assumption and explanations for the behaviour and the ability to act appropriately to remedy areas of concern or deficiency of information.



- 4. Ability to evaluate the impact of external and internal factors, including husbandry/management practices and handling, on behaviour and welfare problems and on those for which help is being sought and areas of concern identified.
- 5. Ability to devise the most appropriate, structured, legally compliant and humane treatment regime (training exercises, training aids and behaviour modification techniques) likely to effectively address the problem(s) and concerns identified in the animal's particular set of circumstances.
- 6. Ability to adjust handling of an animal to its needs.
- 7. Ability to demonstrate and teach appropriate and effective handling exercises, training exercises and behaviour modification techniques whilst protecting against their misuse and ensuring owners/keepers protect the welfare of the animal.
- 8. Awareness of psychopharmacological and other interventions to address problem behaviours and the ability to liaise with the relevant professionals after obtaining appropriate informed consent.
- 9. Ability to set realistic goals, time scales for monitoring progress and assessment of success in individual cases.
- 10. Ability to discuss an agreed treatment regime with the owner/keeper and others involved with the animal for which advice is being sought.
- 11. Ability to rectify areas of misunderstanding, confusion or concern where appropriate.
- 12. Ability to explain to the owner/keeper/carer of the animal, through written guidelines or other appropriate systems of feedback, the areas of concern regarding their animal's behaviour or welfare that have been identified. Their possible causes and the rationale behind the treatment regime selected to remedy these and any associated issues.
- 13. Identification of professional, ethical or other issues that arise when working with an animal, owner/keeper or other individual and take appropriate action to address these.
- 14. Maintenance of records on each animal so that it is possible to critically reflect on the appropriateness and success of different treatment regimens and identify any improvements to practice that could be made.
- 15. Ability to perform a risk assessment.



Course contents

- The essential elements and requirements for the process of behaviour counselling related to behavioural diagnoses.
 Assessment of the multiple aspects of each case, such as behaviour, temperament, functioning of the animal, environment and medical conditions in practice.
- Causes of common behaviour problems in companion animals, such as: undesirable behaviour, anxiety, fear and phobias related behaviours, aggression and repetitive behaviours. How to identify and critically evaluate causes and contributing factors in practice.
- Methods for gathering and recording information relevant to behavioural diagnosis of behavioural problems and how to critically evaluate that information.
- Case studies of common behaviour problems in dogs, cats, horses, small mammals.
- The principles of effective counselling and how to apply to facilitate and maintain behavioural change.
- Effective communication skills, in the collection of relevant information and provision of advice in face to face consultations, communication via phone, writing reports and behaviour modification programs.
- The interactions appropriate in professional relationships and how to apply these in practice.
- The common professional, legal, ethical or other issues that need to be considered or may arise before, during and after a consultation and the actions appropriate to address them.
- The construction of appropriately structured treatment regimens that are likely to be effective for the behaviour problems identified.
- Common behaviour modification strategies used in the treatment of behaviour problems in companion animals.
- How to identify situations where further action may be necessary, including ways in which compliance with an extended treatment regime may be encouraged, the behaviour modification plan requires alteration and when rehoming or euthanasia are indicated.
- Conducting a risk assessment of aggressive animals.
- Practical application of the insights of psychology, neuroscience/cognitive science and principles of ethology and learning theory to the prevention, diagnosis and treatment of common behaviour and welfare problems using case studies and group work.
- Practical application of management strategies, handling techniques, training techniques, training aids and behaviour modification techniques using case studies and group work.



	 Practical exercises in the communication skills pertinent to behaviour counselling.
Planned learning activities and teaching methods	 Distance learning consisting of: Online workshops Reading lists Practical cases studies performed in groups consisting of peer-to-peer learning activities Individual tutorials
Assessment methods and criteria	Assessment methods and criteria
	 Part 7.1: Continuous evaluation: Active participation during all workshops is obligatory to achieve a 'sufficient' for continuous evaluation.
	 Part 7.2: 1 Formative assignment: log file of behaviour consultations 1 Exam: one-hour oral examination 1 practical assessment: behaviour consultation 1 individually composed written assignment: client report of the conducted consultation. In order to participate in the oral exam a pass has to be obtained for the formative assignment.
	 Grading: Part 7.1 The continuous evaluation will be scored on a pass or fail basis. To pass for part 7.1 the student has to achieve a pass for continuous evaluation.
	 Part 7.2: The formative assignment will be scored on a pass or fail basis. To pass for the formative assignment the student has to achieve a pass for the formative assignment. Without having obtained a pass score for the formative assignment the student cannot participate in the oral examination. To pass for the exam a minimum score of 50% of the total score of 20 points has to be achieved. To pass for the practical assessment behavioural consultation a minimum score of 50% of the total score of 20 points of the assignment has to be achieved.



• To pass for the written assignment 'client report' a minimum score of 50% of the total score of 20 points of the assignment has to be achieved.

To pass for the module the following conditions apply:

- The total score of module 7 is based on the arithmetic average of all graded components. A student succeeds in module 7 when:
 - The arithmetic average of all components is at least
 50%
 - The total score for module 7 is more precisely calculated based on the arithmetic average of the result obtained for the following components:
 - Part 7.2: Exam
 - Part 7.2: Practical assignment behaviour consultation
 - Part 7.2: Written assignment client report
 - A minimum score of 50% of the total score of 20 points of the exam is obtained.
 - A minimum score of 50% of the total score of 20 points of the practical assignment consultation is obtained.
 - A minimum score of 50% of the total score of 20 points of the assignment 'client report' is obtained.
 - A pass is obtained for the formative assignment of part 7.2
 - A pass is obtained for continuous evaluation of part
 7.1.

If a student fails (a part of) the module:

- Students failing the exam, the formative assignment or the summative assignment behaviour consultation or client report can take a second chance in the next exam period.
- Continuous evaluation of the workshops 7.1 is not possible in the same academic year.
 - Students failing the continuous evaluation of 7.1 need to participate in the whole or part of the workshop week in the next academic year for their second chance.
- The results for the succeeded components of this module can be transferred to the next academic year and do not have to be retaken.

Other requirements and regulations:

 Penalties will apply for not submitting the assignment in accordance with the requirements described in the course syllabus. More information on these penalties: cf. Course syllabus.



	 A not submitted or not participated assignment will be assigned a score of zero for calculating the overall score or the module.
	No tolerance can be applied to this unit (see the Education and Examination regulations).
Essential study materials	Course materials provided by the lecturers.
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinator	Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>) and David Appleby (<u>appleby@abklinikka.com</u>)
Lecturers	David Appleby Jaume Fatjo Christine Halsberghe Jolanda Pluijmakers
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Course program	Odisee Companion Animal Behaviour and Welfare program Postgraduate course Clinical Animal Behaviourist
Course unit title	PG CABW – CAB M8: Research methods and practice
Type of course unit: Obligatory/Optional	 Obligatory Requests for exemptions can be submitted before the 15th of September 2021 following the instructions described in the document 'Procedure exemptions PG CABW'.
Prerequisites and co-requisites	 The student should have a bachelor diploma. The students study the behaviour and welfare of dogs and cats (obligatory) and one optional category, being small mammals or horses.
Level of course unit	Postgraduate level 6/7
Language	English
Year of study – date course unit is delivered	• 2022-2023
Number of ECTS credits allocated to the unit	16 credits = 400 study hours
General course aims	 This standard relates to the clinical application of the science of companion animal behaviour and welfare, the prevention and treatment of welfare problems and the modification of the behaviour and environment of companion animals that are displaying problematical behaviour or pathological behaviour. This standard involves understanding how to prevent and address welfare problems in companion animals. How to evaluate, prevent or address problematical and pathological behaviours within individual animals through the development of suitable environments and management/treatment regimes that are expected to be effective, based on best practice and scientific evidence. The diagnosis and treatment of pathological behaviour and the use of psychopharmacological interventions is conducted in cooperation with a veterinary surgeon. This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of pathological and



	 problem behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature. Included is the standard is the development of practical research experience in the area of companion animal behaviour and welfare.
Summary of key learning outcomes of the unit	 Demonstration of knowledge and understanding of the theoretical and practical application of the principles of research methods. Conducting an individual research project or dissertation on a relevant topic to the field of companion animal behaviour counselling and welfare.
Specific learning outcomes of the course unit	 Students will know and understand the subjects covered in this module and be able to: 1.1 Demonstrate knowledge and understanding of the principles of experimental design, the principles underlying survey design and the principles of qualitative research methods for a diversity of research questions. 1.2 Explain the use of various forms of control and balance in the design of experimental, survey and qualitative research protocols. 1.3. Understand the role of single subject and case studies in the progression of science. 1.4 Critically assess the designs and analysis of data used in scientific articles and reports. 1.5 To select the appropriate statistical test for quantitative data used for the analysis of differences or correlations and be able to perform tests of statistical significance using interval, ordinal and frequency data. 1.6 Explain and be able to perform analysis of qualitative data using simple tests of association. 1.7 Explain the application of multivariate statistical methods for predicting outcomes and classify data. 1.8 Consider the ethical issues relating to the use of humans and non-human subjects in research 1.9 Conduct an individual research project.
Course contents	Problem definition and hypothesis formation. Independent and dependent variables: their identification and selection. Experimental manipulation, control and internal validity: the roles of random allocation, matching, and counterbalancing in independent groups, related samples and repeat measure designs. The experimental manipulation of more than one independent variable in factorial designs: the contribution of interaction effects.

- The role of random sampling in behavioural research: external validity.
- Quasi-experimental studies of pre-existing groups: the question of causality. The particular strengths and weaknesses of 'single-subject' designs and case studies.
- Observational approaches. Survey research: sampling and the problem of non-response; descriptive versus explanatory surveys; questionnaire design including closed and open ended questions; attitude scale construction; different questioning methods e.g. postal, telephone, email, web based, face-to-face. Methods of controlling for participants expectations and experimenter effects. Interrater reliability.
- Critical evaluation of the methods employed to collect data in psychological research. The theory of psychological measurement: standardisation, reliability and the standard error of measurement; validity. The collection of qualitative data: observation, participant observation, techniques for the collection of verbal protocols. The analysis of qualitative data: content analysis, discourse analysis, grounded theory and protocol analysis.
- The ethics of research with humans and animals research.
- Descriptive and summary statistics: measures of central tendency and dispersion; skew and kurtosis; frequency distributions; graphical methods including frequency histograms and cumulative frequency plots; explanatory data analysis including stem and leaf and box and whisker displays.
 - Probability theory: the binomial distribution (and its normal approximation). The normal distribution: z scores and areas under the curve; the sampling distribution of the sample mean. Statistical inference: significance testing (including the null and alternative hypothesis, type 1 and type 2 errors, significance level, power and sample size); effect size and confidence intervals.
- z-test and t-test of means for single sample, independent samples and related sample designs. Confidence intervals: for the population mean; for the difference between two population means. Mean and error bar graphs. Nonparametric alternatives to t-tests: the sign test; Wilcoxon matched-pairs signed ranks test; Mann-Whitney test.
 Tests of proportions: chi-squared tests for goodness of fit and for contingency tables.
- Bivariate correlation and linear regression: scatterplots;
 Pearson's correlation coefficient; partial correlation; the significance of a correlation coefficient; the linear regression equation and its use in prediction; the accuracy

	 of prediction; Spearman's and Kendall's rank order correlation coefficients. The analysis of variance: one factor independent and repeated measures designs; two factor independent, repeated measures and mixed designs; main effects and interaction effects (including graphical presentation); planned (including trend) comparisons; the Bonferroni correction; post hoc comparisons (including choice between methods); the analysis of simple effects. Non-parametric alternatives to one factor analyses of variance: Krusal-Wallis, Friedman and Cochran's Q tests. The choice of an appropriate statistical analysis: the issue of level of measurement (nominal, ordinal, interval and ratio scales); test assumptions (eg normality, homogeneity of variance, linearity); transformations of the dependent variable in an attempt to meet assumptions; robustness; power efficiency.
Planned learning activities and teaching methods	 Distance learning consisting of: Online video lectures Reading list Group activities Conducting a research under supervision by tutor(s)
Assessment methods and	Formative assignment
criteria	Summative assignment being the research report.
	Grading:
	 To pass the module the student has to score 50% on a total of 20 points (formative + summative). The formative assignment is scored 'sufficient' or 'fail'. A 'sufficient' scores 1/1; a 'fail' scores 0/1. Students who do not submit the assignment at the required deadline score 0/1 on this part. The total score of the summative assignment is 19 points in the first chance.
	If a student fails the module:
	 Students failing the module can take a second chance in the next exam period. In the second chance the student only has to submit the summative assignment. The formative assignment does not have to be retaken. The summative assignment second will be scored on a total of 20 points.

	No tolerance can be applied to this unit (see the Education and examination regulations).
Essential study materials	Course materials provided by the lecturers.SPSS
Recommended or required reading	See reading list provided in the course syllabus.
Unit coordinators	 Adinda Sannen (<u>adinda.sannen@odisee.be</u>) and Jolanda Pluijmakers (<u>Jolanda@davalon.nl</u>)
Lecturers	Adinda SannenJolanda Pluijmakers
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