UAX
UNIVERSIDAD ALFONSO X EL SABIO

March 2023

Self Evaluation Report
UAX Veterinary Faculty

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Introduction

The Alfonso X El Sabio University (UAX) is a private university situated in the autonomic community of Madrid, Spain. Founded in 1993, its name is a tribute to King Alfonso X of Castilla, also known as "the wise" due to his many contributions to literature, history, law and sciences. As the rest of university establishments in Spain, it offers programs adapted to the European Higher Education Area. It offers technical, socioeconomic and health sciences degrees.

Teaching activities take place in 3 different Campus areas: Villanueva de la Cañada (Main Campus), Chamartín (Postgraduate Studies) and Madrid´s dentistry and physiotherapy clinic (Clinical Campus).

The Alfonso X El Sabio University (UAX) has been offering a Veterinary Degree since 2002, providing quality veterinary education without any governmental funding. The Veterinary Faculty is located in main campus as well as the Veterinary Teaching Hospital, research facilities and the Food Technology Plant. Two teaching farms are located off-campus.

The UAX Veterinary Faculty (VF) was visited by ESEVT for the first time in November 2014 for a full stage 1 evaluation, and in November 2017 for the re-visitation with the final classification of the establishment as NON-APROVED. Since the last visitation there has been a change in ownership and management of Alfonso X El Sabio University resulting in a change in the Head of the VF and overall mission, objectives and management. A plan of action has been implemented with the accreditation by EAEVE as a main goal.

Major problems or challenges encountered by the VF are described throughout the SER, but they include:

- Recovering the number and opportunities of hands-on training in certain area like FSQ and VPH due to the persistence of restrictions in the post-pandemic period.
- Adaptation of resources to the number of students.
- Creating new opportunities for research and recovering the PhD program.

These major problems have been resolved.

This SER has been prepared in compliance with ESEVT SOP 2019 as amended in December 2020 and September 2021.


Profit Margin
Sales

Area 1

Objectives, Organisation and QA Policy.

Area 1. Objectives, Organisation and QA Policy.

Standard 1.1: The VEE must have as its main objective the provision, in agreement with the EU Directives and ESG recommendations, of adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning.

The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.

The UAX Veterinary Faculty (VF) mission, in alignment with that of the Alfonso X El Sabio University (UAX), is to produce highly trained and motivated professionals with a specific graduate professional profile termed "maker". UAX Makers have the main competences demanded by the needs of stakeholders, they grow with every challenge, they are passionate about technology, they rather think than memorize, to lead than to follow, to do than to talk about doing.

The main objective of the UAX Veterinary Faculty is to produce veterinary graduates that are fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1 via the national curriculum decided by the Ministry of Education of Spain and approved and reviewed by ANECA (Royal Decree 1393/2007). Additional aims of the VF are preparing our graduates to be competitive and relevant in society by training them in close contact with active professionals (including other disciplines), using evidence and research- based medicine teaching, innovating in teaching methodologies and offering last generation technologies as well as soft-skill development. Our curriculum is delivered in an environment conductive to learning and is based in respect, professionalism and high ethical standards.

The general design of the core curriculum responds to the compliance of this EU directive and Spanish official requirements. The VF manages the curriculum, facilities, staff, learning resources and student assessment to maintain compliance and assure that all new graduates can perform as a veterinarian entering any branch of the profession.

Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.

The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree. The decision-making process, organisation and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.

Details of the VEE:

Facultad de Veterinaria UAX
(UAX Veterinary Faculty).
Avenida de la Universidad, s/n,

28691 Villanueva de la Cañada.
Madrid – Spain.
(+34) 918109200
info@uax.es
www.uax.com

VEE Head (Dean):
Isabel Rodríguez Hurtado (irodrhur@uax.es).

VTH Director:
Fernando Vázquez Fernández.

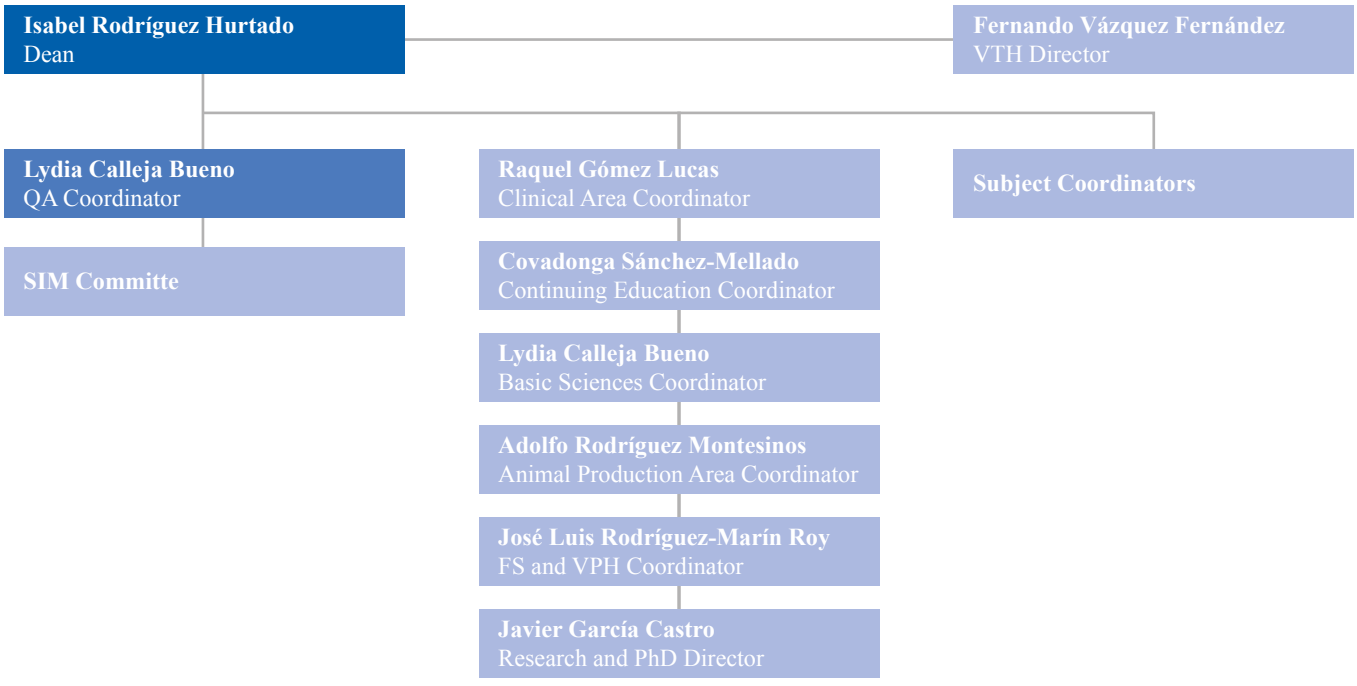
UAX Academic Head (Rector or Provost):
Ana Isabel Fernández Martínez.

UAX Veterinary Faculty is part of the Alfonso X El Sabio University, officially recognized by the Spanish Ministry of Education. The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) hold a veterinary degree.

The decision-making process, organization and management of the VF is based on the collection and assessment of information by the Dean´s Office (working group that leads the curriculum and VF management) from evaluation meetings, QA committees, special working groups and everyday input from students and staff. An action plan is derived by this exercise. Minor changes are applied in an agile and immediate manner and major changes are encompassed in the scope of the strategic plan and approved at the Governing Council (member of rectorate and deans of all the University degrees) and by the Executive Committee (CEO, Financial Officer and Human resources). Both Governing Council and Executive Committee meet monthly and report to the Board of Directors (Company main stakeholders) that also meet periodically. It therefore allows an agile implementation of its strategic plan and of a cohesive study program, in compliance with the ESEVT Standards.

▶ Organizational chart:

UAX VF Organizational chart (2020-2022)



When the new Dean, Isabel Rodriguez Hurtado assumed the leadership of the VF in January of 2020, a working group was created (named Dean´s Office for the rest of the SER) to evaluate the state of the degree at that point, develop a strategic plan (2020-2024) and prepare for the EAEVE accreditation. For this purpose, the Dean recruited academic staff with different expertise to coordinate the main areas identified as needing to be evaluated and invited the existing Director of Research and PhD, and existing VTH Director to the working group. Decisions have been taken based on information collection and assessment in monthly meetings with this group and the Dean has forwarded the action plan as explained previously in this standard.

The organizational chart is being renewed beginning of 2022-23 academic year to better fit the requirements of management and curriculum delivery. The new organization will be presented at the March 2023 visit.

UAX VF does not have a departmental structure but is organized in main areas were subjects are included: Clinical Sciences, Animal Production, FSQ and VPH, Basic Sciences, and areas for Postgraduate Studies, Continuing Education and QA. These areas are managed by area and subject coordinators. The VTH is coordinated by the Director.

▶ Existing committees:

- **Committee for follow-up and improvement of the degree (SIM).** This committee includes representatives from the Quality Vice-Rectorate, the Deans office, staff of all areas and years of the degree as well as students and stakeholders. This committee reports to the rectorate via the vice-rectorate and meets 3 times a year and reviews information from evaluation meetings and Deans office activities, QA queries, information reported by students and staff representatives and stakeholders.
- **Biosecurity Committee:** in the academic year 2019-20, the Biosecurity Committee was created which led to the creation of the Biosecurity Manual and the proposition of improvements in the hospital's infrastructures, to guarantee compliance with the biosecurity rules and regulations. It includes VTH and teaching farm clinicians as well as academic staff. All the decisions are overviewed by the Dean and the director of the VTH UAX. The Committee has a capacity of counselling, concerning biosecurity in the context of the clinical and teaching activity, that is developed in the VTH and Teaching Farms. It provides information concerning the biosecurity protocols to adopt, the available infrastructures for living or dead animals, and defines the processes that allow the evaluation and compliance with the biosecurity program. Thereby, the Committee provides improvements in the biosecurity matters, in accordance with the latest published updates.

▶ Collaboration with other VEEs:

The UAX VF formally collaborates through Erasmus programs, bilateral agreements and research collaborations with EU and worldwide VEEs like Université de Liège, Università degli Studi di Bologna 'Alma Mater Studiorum', Uniwersytet Przyrodniczy we Wroclawiu, Universidad Nacional de Río Cuarto (Argentina), Universidade de Fortaleza (Brazil) or Royal Veterinary College.

VEE Head (Dean): Isabel Rodríguez Hurtado DVM, MSc, Diplomate ACVIM(LA), PhD.

VTH Director: Fernando Vazquez Fernandez, Veterinarian, PhD.

Standard 1.3: The VEE must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with a timeframe and indicators for its implementation.

The Alfonso X El Sabio University (UAX) and its VEE or Veterinary Faculty (VF) have strategic plans, guided by UAX's mission, defined, analyzed and approved by the Executive Committee.

UAX's strategic plan is reviewed and analyzed annually in face-to-face sessions in which all areas of the university are represented (academic and operational) where present and future strategies converge. For the definition of this plan, it has as most important references: the mission and values of the university, the Sustainable Development Goals, the criteria and guidelines for Quality Assurance in the European Higher Education Area (ESG), market analysis, as well as the university regulations governing the studies. Not least, it is fed by the different action plans generated in the different areas of the University included, therefore, the VF plan.

The rector, who presides over the Academic Council, is responsible for managing the educational offerings and academic processes at each of the schools, in accordance with UAX's educational model and quality standards, and for implementing the research strategy.

The University plan, in turn, comes down to the VF to be used for the definition of the VF action plan. The VF strategic plan is guided by UAX's mission, the criteria and standards of EAEVE and ESEVT, market analysis, a SWOT analysis of its current activities, and the pillars of UAX's educational model. It includes a list of objectives, and an operating plan with a timeframe and indicators for its implementation.

Aligned with VF strategic plan and as a result of the analyses and recommendations that arise as part of the evaluation processes, VF action plan is defined.

The VF School Board (Deans Office) is presided by the dean, and makes decisions regarding the design and implementation of the VF strategic plan that governs the strategy of the school and how the degree is taught. The board includes the degree coordinators.

Moreover, the VF action plan reflects the areas of improvement derived from the reflection and analysis carried out in the Quality Commissions of both the degree and the school, in which faculty, support staff, students and employers are represented. Undoubtedly, it is an enriching forum for debate that favors the definition of a VF action plan (and its follow-up). This action plan defines general and specific actions, objectives, deadlines, responsibilities and related indicators.

Summary of the VEE's strategic plan, operating plan and updated SWOT analysis.

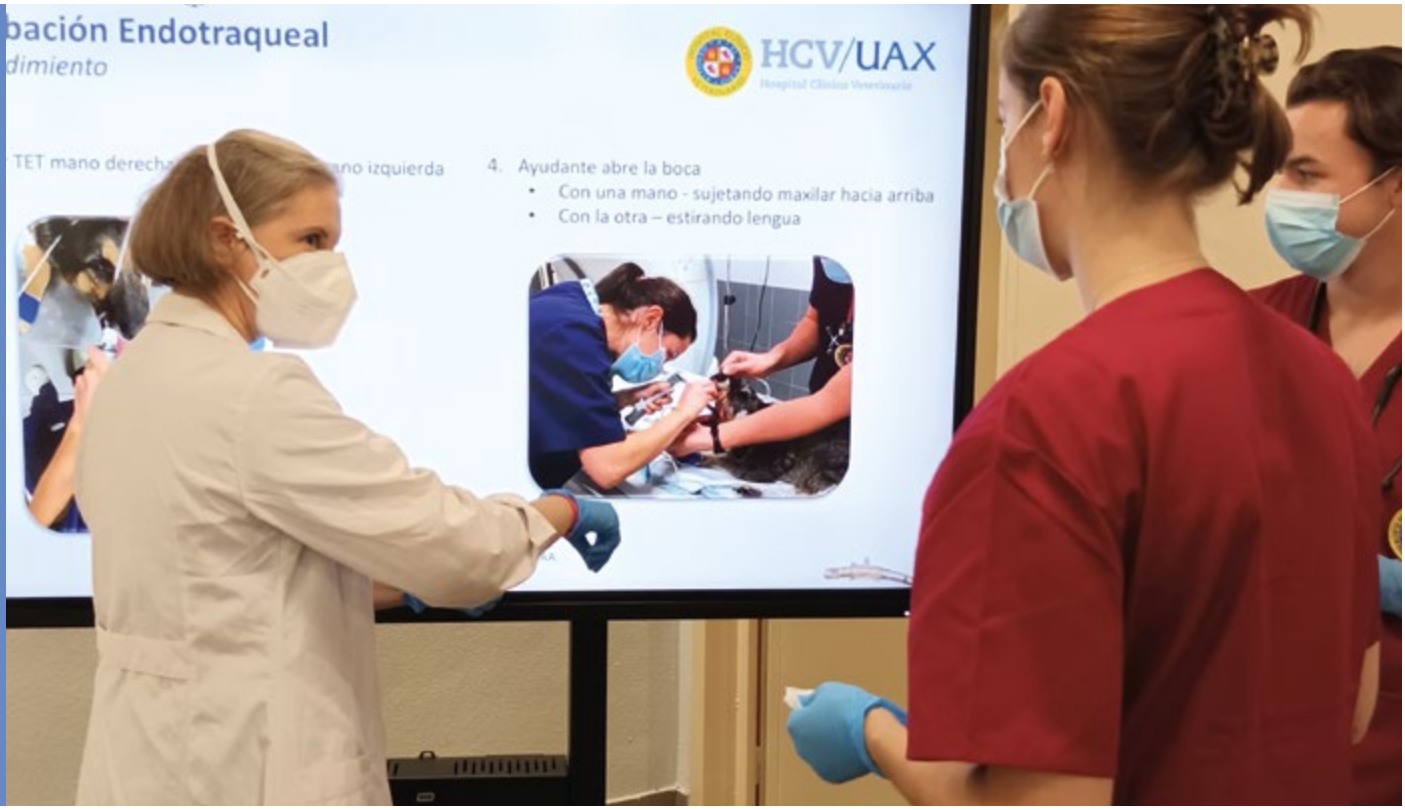
VF strategic plan for 2020-24 is based in 3 main pillars:

- Leadership in Veterinary Education: by renewing and improving facilities at the VTH and Teaching farms or the clinical skills lab, or by increasing the number of PhD and nationally accredited teachers.

- Quality and Excellence: the VF must pursue the EAEVE accreditation and promote excellence in the delivery of the curriculum by, for example, increasing the number of agreements with extramural establishments.

- Growth: implementing actions to increase postgraduate training opportunities and case number and variety at the VTH, for example.

Overall, the operating plan, expected timing and key performance indicators (KPI) have been achieved during 2020-21 and 2021-22. Full strategic plan and operating plan is presented in the Appendix.



UAX VETERINARY FACULTY SWOT ANALYSIS 2021-2024

Strengths

- Teacher professional experience and background.
- Multiculturality: 22-25% international students.
- Tutoring and mentoring: active, one-on-one.
- Student participation in QA.
- Student evaluation of teachers, Faculty and University.
- Firsthand contact with stakeholders.
- Soft-skill training.
- Multidisciplinary projects involving students and teachers from different degrees.
- Innovation in teaching.
- Technology.
- Agreements to improve number and quality of learning and research opportunities.
- Updated and clear strategies aligned with the UAX objectives and job market demands.

Weaknesses

- Low number of stablished research lines.
- Low number of FTEs devoted to research.
- Little research experience in most staff.

- Lack of a unified location for teaching farm premises.
- Low adult cattle case-load at the VTH.
- Low number of Board Certified Specialists in non-clinical area.s
- Low number of official residencies.
- Few nationally accredited FTEs.
- Lack of official postgraduate courses other than PhD.

Opportunities

- New PhD program is growing and will help consolidate stablished lines and create new.
- Positive outcomes with recent partnerships will help sign new agreements.
- New recruitment strategy will increase the number of teachers with interest and experience in research.
- New appraisal, promotion, retribution and funding strategies will enhance research, publication and application to national accreditation for teachers.
- New staff training platform will provide easier access to courses as well as staff evaluation.

Threats

- Strong competition in research, at regional and national level.
- Competition for teacher and student recruitment in public and private sectors.

Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the VEE's strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.

UAX has had an Internal Quality Assurance System (SGIC) since 2004. Its design was certified by the Spanish National Agency for Quality Assurance (ANECA) through its AUDIT program in 2004. Additionally, SGIC was certified by ISO 9001.

The SGIC is governed by the Quality Policy through which UAX, and specifically the VF, assumes the institutional commitment to promote the educational excellence of its students by continuously improving is processes to comply with the university's mission. Different university stakeholders (students, teachers, support personnel, graduates, and employers) take part in defining and reviewing this policy.

The SGIC covers the process of implementing and reviewing the bachelor's degrees, master's degrees and PhD degree programs offered at UAX, and in consequence specifically the VF. These processes have been designed to be in line with the quality standards required by external regulatory bodies and to ensure that the academic activities designed lead to the desired learning outcomes.

The degree program review process has been systematically implemented at UAX since the beginning, and redefined in 2020 increasing student and faculty participation, under the name of PlanQUAX; it essentially consists of a self-assessment of the program and implementation of an associated action plan. The self-assessment is led by the Quality Commissions (SIM), that meets three times per academic year.

The development of the VF quality culture is carried out through the figure of the Quality Coordinator of the VF and the Vice-rector's Office for Studies and Quality of the University, who work together to develop and implement quality culture in the VF. The VF has working teams and commitees, as mentioned above, which are a forum where teachers, support staff, students, graduates, employers, etc. are represented.

The degree QA system focuses on the degree in terms of the results of the training and learning process of students in terms of coordination, student profiles, evaluation, performance results and satisfaction of students, graduates, teachers, support staff and employers. It offers a perfect X-ray of the degree that allows identifying strong points and areas for improvement that should be considered for the definition of the action plan.

Finally, the quality culture ends with the meeting of the Quality Commission of the University where a global review of the entire quality assurance system, quality policy and objectives, indicators, etc. is carried out.

The Quality Assurance System has a cyclical review through different internal and external mechanisms, such as:

- Management review, annually.
- Review by the Quality Commissions, three times a year.
- Internal and external audits, annually.
- External evaluations, every three years.
- Analysis of results of indicators, non-conformities, improvement actions, according to the periodicity established in the defined processes.
- Forums for students, graduates and employers, annually.
- Stakeholder satisfaction measurement tool, every quarter.

Core to UAX's operational and academic model is the systematic tracking of key student outcomes, performance, and satisfaction indicators to monitor and aim at continuous improvement in the quality of its program offerings and services. All of this allows the collection of data for analysis and decision making in the different University strata. These data are displayed through the Academic and Management Dashboard, Medallia Dashboard with satisfaction KPIs, etc. These scorecards display information on the university's effectiveness, using the most representative performance and satisfaction indicators to analyze the degree´s and university evolution, monitors the quality, such as the quality of the VF, and its compliance with strategic objectives. The Academic and Management Dashboard includes a dictionary of indicators, specifying the scope of each indicator, which has been linked the Degree Indicators Report. The process for information gathering and analysis is indicated in the SGIC improvement management procedure.

In addition, data (and improvements) are periodically reported through the different quality committees and the institution's web page where evaluation results, indicator results, implemented improvements, etc. are shown.

Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public information must be clear, objective and readily accessible; the information must include up-to-date information about the study programme, views and employment destinations of past students as well as the profile of the current student population.

The VEE's website must mention the ESEVT VEE's status and its last Self Evaluation Report and Visitation Report must be easily available for the public.

Since its creation, UAX has been closely connected to the market in which it operates developing an acute sense of awareness and the mechanisms to monitor, interpret and respond to societal or sectorial changes, including modifications to the regulations.

The VF has different mechanisms through which it interacts with stakeholders and the society in general, among which the following stand out:

- Quality Commissions: As described in Standard 1.4, the Quality Assurance System has a cyclical review in which students, staff, VF management team, and stakeholders participate.

- Student Council: UAX is also committed to stakeholders interaction through student participation. According to the provisions of the UAX Representative and student government regulation, each year VF students elect their representatives to the Student Council. These representatives actively participate at different levels in university decision-making processes.

- Monographic forums with graduates and employers.

- Forums coordinated by different public and private associations at the local, national and international levels: Through these forums the VF can monitor the external environment and exercise its influence in different business, social and regulatory circles.

- Meetings of expert panels: Relevant professors, managers, deans, employers, industry professionals, and experts meet to discuss the relevance of the curriculum.

- Market Research: The institution aims at consolidating and strengthening the degrees according to market trends. The marketing department plays a fundamental role in this process, as it is responsible for obtaining all necessary market reports, through a Market Research Unit that has been functioning since 2019.

- Website. Integrity and transparency: The website provides up-to-date, accurate and accessible information about the degrees and the VEE to society and the wider society. The website publishes in quality area the ESEVT VEE's status and last UAX Self Evaluation Report and Visitation Report.

Moreover, UAX's commitment to quality and stakeholders participation in the improvement has been consistent since its beginning and reinforced since 2020 with Plan QUAX. It involves all members of the university community, who participate in the cycle of data generation, analysis and decision-making for purposes of evaluation and improvement.

The Vice-rector's Office for Studies and Quality has implemented a Measuring to Improve Plan, which includes satisfaction studies on students, faculty, non-teaching personnel, alumni, and employers, and tracks the entire cycle of a student at the university, from their enrollment to their graduation and subsequent work life.

Standard 1.6: The VEE must monitor and periodically review its activities, both quantitative and qualitative, to ensure that they achieve the objectives set for them and respond to the needs of students and society. The VEE must make public how this analysis of information has been utilised in the further development of its activities and provide evidence as to the involvement of both students and staff in the provision, analysis and implementation of such data. Any action planned or taken as a result of this data analysis must be communicated to all those concerned.

The strategic plan, the organization, activities and QA policies are proposed by the Dean based on information obtained from the Deans Office, evaluation meetings, SIM and any other input, to the Governing Council and Executive Commitee and the decisions approved by these committees are communicated to staff, students and stakeholders representatives and on the VF website. These actions are implemented based on the operational plan and are assed and revised by the Dean and the Deans Office.

Standard 1.7: The VEE must undergo external review through the ESEVT on a cyclical basis. Evidence must be provided of such external evaluation with the assurance that the progress made since the last ESEVT evaluation was linked to a continuous quality assurance process.

The last ESEVT Full Visitation took place in 2014 with a re-visitation in November of 2017. Main deficiencies were not corrected at the time, despite major improvements, due to the increase in students that was not matched with an adequate increase in resources.

Main corrective measures put in place are summarized below but these improvements together with all the changes implemented since 2020 are fully described throughout the SER:

- The number of new incoming students was reduced in 2018-2019 and has been stable since then, producing a significant and progressive decrease in the number of graduates and improving the curriculum delivery and the acquisition of Day One Competences.
- The resources and facilities have been adapted to the existing number of students, including a significant increase in training opportunities in food-producing animals based on re-organizing management and boosting activities in teaching farms and ambulatory clinics.
- New management team at UAX has implemented a Research Vice-Rectorate with a clear and effective strategic plan including training and support for research together with increased funding.
- New financial team has studied deeply and prepared all the pertinent data together with the Dean in a very constructive reflection process.

The comments and suggestions of the last (and prior) ESEVT visitations have been used as guidelines to create the strategic plan 2020-24 together with the new mission statement and objectives. Changes in the degree quality were quickly palpable for students and staff and the entire community of VF is immersed in a profound sense of evolution and accomplishment.

Comments on Area 1

The UAX VF has suffered a profound change since 2020 with the definition of a clear strategic plan and objectives as well as the implementation of a new QA system. The degree is improving daily and has used prior ESEVT visitation results efficiently to guide all the changes.

Suggestions for improvement in Area 1

The UAX VF is still undergoing major changes like building a proper Management Board (to replace the Deans Office), to help the Dean achieve it´s vision for the degree. A Chief of studies is to be appointed in 2022-23 as is a coordinator for innovation in teaching and a coordinator for international programs. Further work is needed in certain areas and subjects are being re-organized and re-defined to further improve deficiencies overcome by post-pandemic scenarios or to adapt to changes in the profession.

2

Area 2

Finances.

Area 2. Finances.

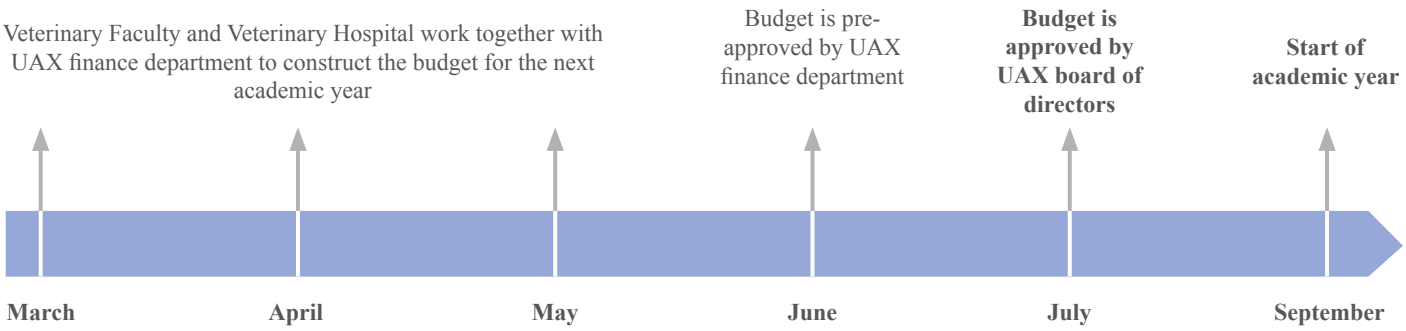
Standard 2.1: Finances must be demonstrably adequate to sustain the requirements for the VEE to meet its mission and to achieve its objectives for education, research and services. The description must include both expenditures (separated into personnel costs, operating costs, maintenance costs and equipment) and revenues (separated into public funding, tuition fees, services, research grants and other sources.

The financial process of UAX has changed significantly since 2020 with the appointment of a new management team, including a new Chief Executive Officer, a new Rector, and a new Chief Financial Officer, and the implementation of a new business model in which each faculty enjoys higher autonomy.

Under the new management and new business model, each faculty prepared a strategic plan for the 2021-2024 period that was presented and approved by the UAX Executive Committee. This strategic plan lays out the main academic, operational and financial objectives of each faculty for the following years and the high-level estimate of the resources needed to achieve it.

In this sense, the strategic plans serve as guidelines for the budgets that are prepared for each faculty each year. The budget is prepared annually and follows the academic year (September to August). The budgeting process runs from March to early July, when it is jointly approved by the Board of Directors.

It is worth noting that the Veterinary Faculty and the Veterinary Teaching Hospital albeit being intrinsically related are managed as different areas of activity and by different teams. In this sense, both the Veterinary Faculty and the Veterinary Hospital have their own annual budget.



UAX has a transparent approach to finance and both the Veterinary Faculty and the Veterinary Teaching Hospital receive a monthly statement on their financial position through a report that details year-to-date comparisons with previous year and the budget.

▶ Veterinary Faculty

The budget and general finance process of UAX's Veterinary Faculty can be summarized in four main factors:

i. Tuitions fees collected from students.

ii. Research grants.

iii. Direct expenditures managed directly by the faculty.

iv. Expenditures managed centrally by UAX and allocated to the faculty.

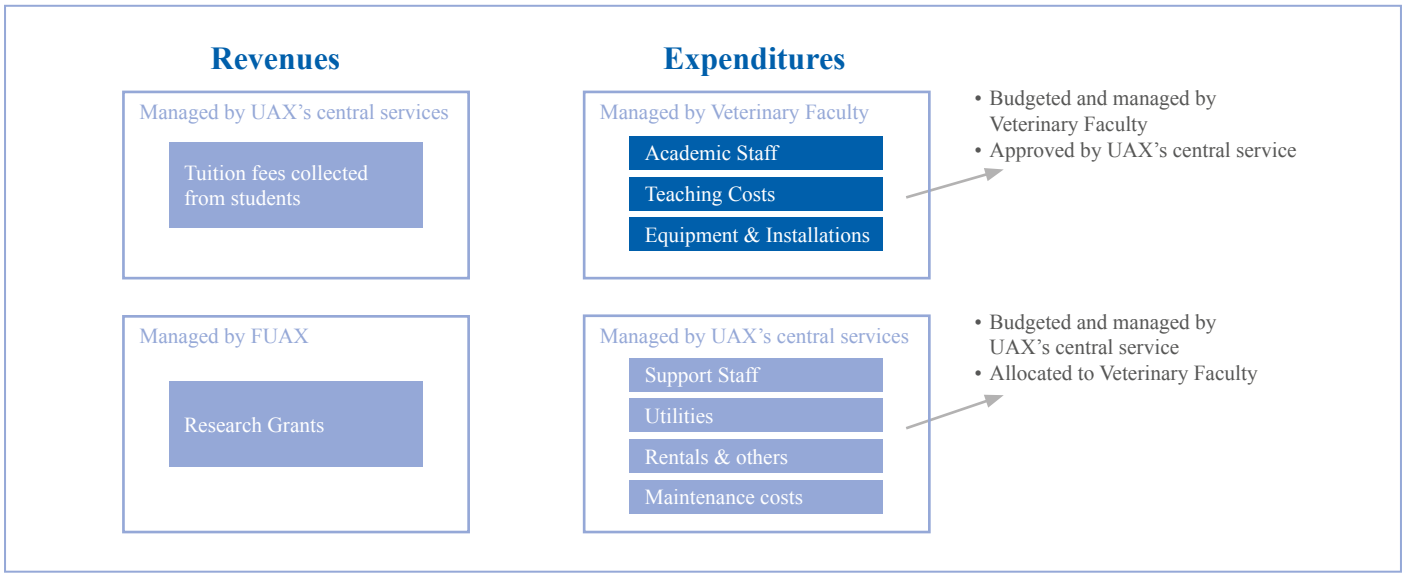


Figure 2. Finance Process Overview – Veterinary Faculty

i. Tuitions collected from students

The faculty is mainly funded through the tuition fees collected from students, which represent c. 95% of the total financing of UAX's Veterinary Faculty.

Tuition fees are managed and collected centrally by UAX and then allocated to each faculty according to the programs where each student enrolled.

The estimation of revenues is the first step of UAX's budgeting process. Every year in May UAX's financial department provides UAX's Veterinary Faculty with an estimate of the total tuition revenues and number of students that will be enrolled in the next academic year. This estimation takes into account inputs from the Dean of the Veterinary Faculty as well as the Commercial and Marketing departments.

Students at the veterinary medicine degree without scholarships pay EUR 208 per ECTS plus a registration fee of EUR 3.500. The tuition fee is the same for both national and international students. 20% of the tuition fees paid by students are collected at the beginning of the academic year, while the remaining 80% is collected in 10 monthly installments.

ii. Research grants.

Research grants contribute to c.5 % of the total financing of UAX's Veterinary Faculty.

In UAX, the management of research grants is centralized in Fundación Alfonso X El Sabio (FUAX), which then allocates a research budget to each faculty based on their ongoing and projected research projects. It is worth noting that not all research activity of the Veterinary Faculty is funded through research grants, as research costs tend to be higher than the research grants allocated by FUAX.

iii. Expenditures managed directly by UAX's Veterinary Faculty.

The faculty is responsible for the management of its academic, teaching and research expenses, which include mainly the (i) personnel costs related with teaching, investigation and faculty management, (ii) the acquisition of laboratory equipment and consumables, and (iii) investment in veterinary infrastructures. These expenditures managed directly by the Veterinary Faculty represent c. 43% of total revenues and c.30% of total expenditures of the faculty.

Regarding personnel costs, UAX's Veterinary Faculty estimates in June the necessity to adjust upwards or downwards its teaching staff based on the estimated number of teaching hours required, which are estimated based upon the number of students expected for the following year. In addition, UAX's Veterinary Faculty determines if there is a need to hire additional staff to pursue its investigation objectives and the implementation of a specific strategic project.

As for non-personnel costs, UAX's Veterinary Faculty estimates yearly the resources it will need to support the teaching and investigation activities and/or the implementation of a specific strategic project. These costs include among other the fee paid to the Veterinary Teaching Hospital for the clinical teaching.

These estimated expenditures are then reviewed and pre-approved centrally by the UAX's financial department, together with the expenditures of the other faculties. Any adjustment to these expenses proposed by UAX's financial department needs to be approved by Dean of the Veterinary Faculty. Budget for these expenses is approved formally by UAX's Board of Directors before the end of July.

iv. Expenditures managed centrally by UAX and allocated to UAX's Veterinary Faculty.

Expenses related with marketing and commercial activities, support functions (finance, human resources, etc.), rents, maintenance costs and other costs related with the university structure are budget and managed by UAX central services.

These expenses are allocated to each area of activity of UAX according to a criteria defined and reviewed every three years that takes into account (i) the revenues of each area of activity and (ii) an adjustment criteria that reflects the strategic importance of each area of activity.

▶ Veterinary Teaching Hospital

Despite being an independent area of activity, the primary mission of the teaching hospital is to provide clinical teaching to the students of the Veterinary Faculty.

The budget and general finance process of UAX's Veterinary Teaching Hospital can be summarized in four main factors:

i. Revenues from clinical services.

ii. Revenues from clinical teaching activities of the Veterinary Faculty.

iii. Direct expenditures managed directly by the Veterinary Teaching Hospital.

iv. Expenditures managed centrally by UAX and allocated to the Veterinary Teaching Hospital.

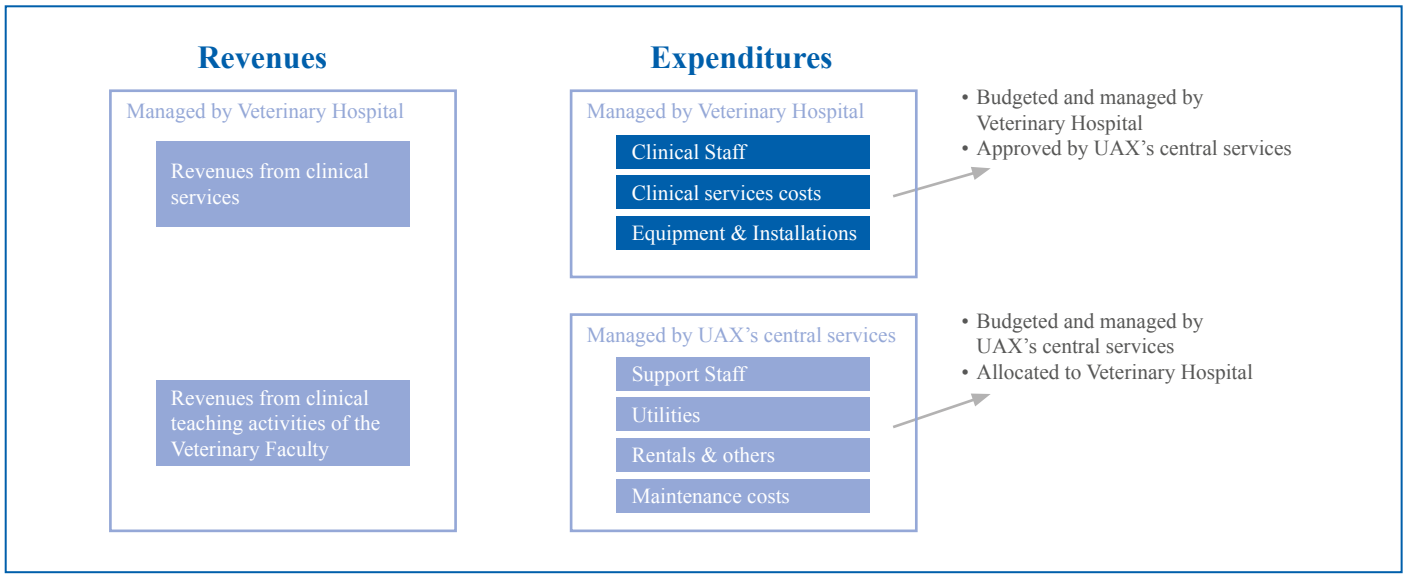


Figure 3. Finance Process Overview – Veterinary Teaching Hospital

i. Revenues from clinical services.

The Veterinary Teaching Hospital charges market prices for its clinical services, which cover c.20 specialties for a wide range of species. The hospital is visited annually by more than 12,000 clients. Revenues from these services represent c. 74% of the total financing of the Veterinary Teaching Hospital and are essential to cover its the running costs.

Clinical services are managed and budgeted directly by the teaching hospital. These estimated revenues are then reviewed and approved centrally by the UAX's financial department, together with the revenues of the remaining areas of activity.

ii. Revenues from clinical teaching activities of the Veterinary Faculty.

The Veterinary Teaching Hospital charges the Veterinary Faculty for the clinical teaching activities of its students in the hospital. The fee to be paid by the faculty is determined by multiplying the (i) number of hours of clinical teaching activity in the hospital by (ii) a fee per hour of practical teaching.

Revenues from clinical teaching activities represent c. 26% of the total financing of the Veterinary Teaching Hospital.

During June, the Veterinary Faculty provides the Veterinary Teaching Hospital an estimate of the number of hours of clinical teaching that will be required in the upcoming academic year. At the same time, UAX's finance department sets hourly fee the Veterinary Faculty should paid to the Veterinary Teaching Hospital during the next academic year.

iii. Direct expenditures managed directly by the Veterinary Hospital.

The teaching hospital is responsible for the management of expenses directly related with its clinical services and clinical teaching activity, which include mainly (i) personnel costs of the veterinary professionals working at the hospital, (ii) the acquisition of materials and equipment and (iii) investment in the hospital's building and infrastructures.

These expenditures managed directly by the Veterinary Teaching Hospital represent c. 75% of total revenues of the hospital and c.75% of total expenditures of the hospital.

Regarding personnel costs, UAX's Veterinary Teaching Hospital hires veterinarian professionals to provide its clinical services and the clinical teaching to the students of the Veterinary Faculty. Every year in June the Veterinary Faculty estimates the necessity to adjust upwards or downwards its staff based on the projected activity of the hospital and number of clinical teaching hours needed by the Veterinary Faculty.

As for non-personnel costs, UAX's Veterinary Hospital estimates yearly the resources it will need to support its clinical services and, more importantly, the clinical teaching activity of the Veterinary Faculty.

These estimated expenditures are then reviewed and approved centrally by UAX's finance department, together with the expenditures of the other areas of activity. Budget for these expenses is approved formally by UAX's Board of Directors before the end of July.

iv. Expenditures managed centrally by UAX and allocated to the Veterinary Teaching Hospital.

Expenses related with marketing and commercial activities, support functions (finance, human resources, etc.), rents, maintenance costs and other costs related with the university structure are budgeted and managed by UAX central services.

These expenses are allocated to each area of activity of UAX according to a criteria defined and reviewed every three years that takes into account (i) the revenues of each area of activity and (ii) an adjustment criteria that reflects the strategic importance of each area of activity.

▶ Teaching Farms

The Veterinary Faculty has agreements with two privately owned establishments Kuna Iberica in Navas del Rey and IEGRA in Talavera de la Reina for these centers to act as teaching farms for our students. These establishments charge the Veterinary Faculty for the clinical teaching activities of its students in their premises. Teaching activities undertaken in these establishments are delivered by Veterinary Faculty academic staff. The Veterinary Faculty also takes care of expenditures derived by materials used in programmed practical activities, as well as all the maintenance and care costs of farm animals and their enclosures, or practical procedures, that were included in these establishments per Veterinary Faculty indications.

Table 2.1.1. Annual expenditures during the last 3 academic years (in Euros)

	21/22	*20/21*	*19/20*	
Area of expenditure	AY*	AY-1	AY-2	Mean
1. Personnel	6.093	5.355	4.352	5.267
1.1. Academic & Clinical Staff (1)	4.397	3.812	3.356	3.855
1.1.1. Faculty	2.465	2.103	1.996	2.188
1.1.2. Hospital	1.932	1.708	1.359	1.667
1.2. Support Staff	1.697	1.543	997	1.412
1.2.1. Faculty	1.515	1.368	955	1.279
1.2.2. Hospital	182	175	42	133
2. Operating Costs	5.589	4.576	4.179	4.781
2.1. Teaching & Clinical services (2)	3.295	2.968	2.753	3.005
2.1.1. Faculty	2.438	2.099	2.056	2.198
2.1.2. Hospital	856	869	697	807
2.2. Utilities	1.249	630	608	829
2.2.1. Faculty	1.162	600	583	782
2.2.2. Hospital	87	31	24	47
2.3. Rentals & others	1.045	977	818	947
2.3.1. Faculty	1.020	949	796	921
2.3.2. Hospital	26	28	23	26
3. Maintenance costs	3.361	3.533	3.406	3.433
3.1. Maintenance Costs	3.361	3.533	3.406	3.433
3.1.1. Faculty	2.772	2.790	2.715	2.759
3.1.2. Hospital	589	743	692	675
4. Equipment & Installations	286	108	235	209
4.1. Equipment & Installations	286	108	235	209
4.1.1. Faculty	4	18	--	8
4.1.2. Hospital	281	90	235	202
Total Expenditures	**15.328**	**13.572**	**12.173**	**13.691**

(1) Includes research staff.
(2) Includes research costs and costs related with the teaching farms.

Table 2.1.2. Annual revenues for the last three academic years (in thousand euros)				
	21/22	*20/21*	*19/20*	
Area of revenues	AY*	AY-1	AY-2	Mean
Revenues source	--	--	--	--
Public authorities	--	--	--	--
Tuition fee (standard students)	15.969	15.488	15.132	15.529
Tuition fee (full fee students)	--	--	--	--
Clinical services	2.374	2.336	1.493	2.068
Diagnostic services (1)	--	--	--	--
Other services	--	--	--	--
Research grants	517	141	77	245
Continuing Education	--	--	--	--
Donations	--	--	--	--
Other sources (2)	1.668	1.791	1.817	1.759
Total Revenues	**20.528**	**19.757**	**18.519**	**19.601**

(1) Included in clinical services
(2) Fee paid by the Veterinary Faculty to the hospital for the clinical teaching activities.

Table 2.1.3. Annual balance between expenditures and revenues (in euros)				
	21/22	*20/21*	*19/20*	
Area of revenues	AY*	AY-1	AY-2	Mean
Total Expenditures	-15.328	-13.572	-12.173	-13.691
Total Revenues	20.528	19.757	18.519	19.601
Balance	**5.199**	**6.185**	**6.346**	**5.910**

Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations.

The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.

The financial management of the Veterinary Teaching Hospital has been described in Section 2.1. As aforementioned, the teaching hospital operates as a different area of activity from the faculty. The hospital management team is accountable for ensuring the hospital is run as cost effectively as possible, but its mission is not to seek profit but rather to assure the clinical teaching of the students of the veterinary faculty.

Field service activities are funded in the same way as teaching farms. Field veterinarians are trained as academic staff and are paid per hour of practical training.

The financial model described in Section 2.1 provides the Dean of the faculty and the Director of the teaching hospital with autonomy regarding staffing, expense and investment decisions included in the annual budget. As aforementioned, both the faculty and the hospital are responsible to budget and manage c. 50% of their expenses, while the remaining expenses are centrally managed by UAX.

At the same time, the teaching hospital has a greater flexibility than the faculty on its funding, as it manages directly its clinical services that account for c. 74% of its revenues, while the revenues of the faculty are managed centrally by UAX and FUAX.

It is worth noting that in case there is a need for the acquisition of any equipment, development of infrastructure or to incur in any other expense that exceeds the annual budget of the faculty, the Dean cannot directly approve the expense and must submit an approval request to UAX's finance department for consideration.

Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.

As part of the budgeting process, the finance department works together with all areas of activity of UAX to identify and detail the investment needs for developing, improving and/or refurbishing of facilities and acquisition of special equipment.

The investment needs are then categorized according to its (i) priority, which takes into account its relevance to achieve the academic, operational and financial objectives set out in the strategic plan of each area, and (ii) transversal impact, dividing between campus-wide investments or faculty-specific investments.

Finally, the investments are approved by the Board of Directors as part of the budget for the next academic year.

It is worth noting UAX is strongly committed to foster practical teaching and improve the experience of its students at the campus. This has been reflected in a steep increase in investment, which should continue in the coming years. In fact, all investments identified by the different areas of activity during the budget processing have been approved in the last two years, with several of these investments being currently ongoing.

Table 2.3.1. List of the ongoing and planned major investments

Project name	Status	Investment	Comments
		(EUR '000)	
Renovation of general installations of Veterinary Teaching Hospital	Ongoing	106,9	Renovation of exterior areas, reception area, resting room and simulation rooms
Acquisition of new ultrasound and radiology equipment	Ongoing	92,7	Includes acquisition of equipment and building renovation
Creation of ICU for small animals	Ongoing	96,8	Acquisition of new equipment such as Dinbeat UNO, Esaote ultrasound system and Fujifilm portable ultrasound system
Update of operating rooms	Ongoing	72	Renovation of the installations of the operating rooms
Update of anatomy pathology laboratory	To start in 2023	66,1	Renovation of equipment and installations of the anatomy pathology laboratory
Creation of a new operating room for small animals	Ongoing	41,1	Acquisition of new equipment such as Atlan A300, Vista 120, Scio
Update of rehabilitation area	To start in 2023	35,7	Renovation of installations and acquisition of new water treadmill for small animals
Acquisition of new endoscopy equipment for equines	To start in 2023	35,1	Acquisition of new gastroscopy equipment and forceps
Update of Granja Navas del Rey teaching farm	Ongoing	11	Renovation of several equipment and installations of the teaching farm

Besides the abovementioned specific actions / investments, UAX is currently working on a full renovation of the veterinary hospital that will represent a major investment in the range of EUR 4-5m and will be carried out in the next 24-36 months.

Considering the strategic priorities of the faculty and the teaching hospital and the high-inflation context, expenses are expected to continue growing above revenues in the coming year, which should deteriorate the balance between revenues and expenditures. Still, the next academic year is expected to be an inflection point and the annual balance should stabilize in the following years.

Table 2.3.2. Prospected expenditures and revenues for the next 3 academic years (in thousand euros)

	24/25	*23/24*	*22/23*	
Area of revenues	AY+3	AY+2	AY+1	Mean
Total Expenditures	-17.322	-16.900	-16.095	-16.772
Total Revenues	23.198	22.093	21.041	22.110
Balance	**5.876**	**5.193**	**4.946**	**5.338**

YOY Growth			
Total Expenditures	2,50%	5,00%	5,00%
Total Revenues	5,00%	5,00%	2,50%

As described in Section 2.1, UAX has a budgeting process in place for the faculty and the hospital that is approved annually by the Board of Directors in July. Once the budget is approved, the Dean of the Veterinary Faculty and the Director of Veterinary Teaching Hospital have the autonomy to execute their budget. UAX has an expense approval process that provides great autonomy to each area of activity to execute expenses that are included in their budget. In this process, financial needs included in the budget can be directly approved by the Dean of the Veterinary Faculty and the Director of the Veterinary Hospital.

In addition, the faculty and hospital (i) receive a monthly statement on their financial position through a report that details year-to-date comparisons with previous year and the budget and (ii) have monthly follow-up meetings with the financial department. Major investments and improvements are communicated to staff, students and stakeholders via our website and through our QA system, which also reviews together with the Dean´s Office the implementation, assessment and revision.

Comments on Area 2

As aforementioned, the finance process of UAX as a whole, and consequently of the Veterinary Faculty and Veterinary Teaching Hospital, has change significantly since 2020. Over the last three years, there has been strong transformation in the management and priorities of the Veterinary Faculty and Veterinary Teaching Hospital.

This transformation has resulted in a decrease in the annual balance between revenues and expenses of the Veterinary Faculty as UAX has been committed to (i) improve the experience of its students and (ii) strengthen its research activity. The Veterinary Faculty is a strategic area for UAX, as such the short-term financial impact of the several initiatives put in place were predicted and are not worrisome for UAX.

Suggestions for improvement in Area 2

Veterinary Faculty's revenues are strongly concentrated in the veterinary degree. The launch of new programs, especially postgraduate and continuing education programs that could lever on the hospital infrastructure could help to mitigate the overdependence on the veterinary degree.

Research funding of the Veterinary Faculty is managed and allocated centrally by FUAX, which limits the faculty's financial autonomy to pursue its research activities. In recent years research costs have gone beyond research grants allocated by FUAX. In this sense, the Veterinary Faculty suggest a review of the process through which FUAX allocates research grants to put greater emphasis on the special nature of the Veterinary Faculty.

The Veterinary Faculty could benefit from more financial autonomy as the lasts years tendency in this regard has proven beneficial to the degree.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Area 3

Curriculum.

Area 3. Curriculum.

Standard 3.1: The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1. The curriculum must include the subjects (input) and must allow the acquisition of the Day One Competences (output) listed in Annex 2. This concerns Basic Sciences, Clinical Sciences in companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.

The primary educational aim of the VF is to produce veterinary graduates that are fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1 via the national curriculum decided by the Ministry of Education of Spain and approved and reviewed by ANECA. Additional education aims of the VF are preparing our graduates to be competitive and relevant in society by training them in close contact with active professionals (including other disciplines), using evidence and research- based medicine teaching, innovating in teaching methodologies and offering last generation technologies as well as soft-skill development.

The general design of the curriculum responds to the compliance of this EU directive and Spanish curriculum and the basic resources are assigned to the curriculum to maintain compliance. Management of the curriculum also includes adapting to new fields or requirements of the profession. UAX VF graduates are trained and assessed on the acquisition of the Day One Competences (DOC) throughout subjects in Basic Sciences, Clinical Sciences, Food Safety and Quality and Professional Knowledge.

There is a defined basic national curriculum decided by the Ministry of Education of Spain, which is approved, supervised and regularly audited by the national accreditation agency ANECA. The curriculum for the Degree in Veterinary at the Universidad Alfonso X El Sabio structures training according to the guidelines laid down in Royal Decree 1393/2007 of 29th October, which establishes the organization of official university education (chapter 3, article 12). The entire degree program is organized into modules, each of which is allocated a series of skills and knowledge that must be acquired. The high level of mandatory components is intended to provide the student with a foundation of skills and knowledge that are considered to be a basic requirement for veterinarians. In order to achieve this, the program follows the specifications of the relevant Ministerial Order and Royal Decree 1837/2008 and EU Directive 2005/36/EC (as amended by directive 2013/55/EU) which lay down the requirements that this degree must satisfy, in order to qualify an individual for the exercise of a regulated profession, in this case that of a veterinarian.

Within this curriculum, UAX and any other Spanish university can suggest changes and forward them to ANECA for consideration and approval. ANECA evaluates the relevance of these changes and how they comply with the relevant Ministerial Order and Royal Decree if they significantly affect the approved Degree Description (Memoria ANECA). These changes can include modifications on curriculum, course content and hour allocation. They are decided based on QA assessments and conclusions obtained at the Committee for Follow up and Improvement of the Degree (GVE-SIM) and are articulated through the Faculty Board once they are approved by ANECA. When these changes are minor and do not significantly alter the approved Degree Description (Memoria ANECA), they are implemented as soon as they are identified to actively respond to student, teachers or stakeholders' inputs.

As mentioned previously, needed curricular changes are identified and monitored mainly by the Committee for Follow up and Improvement of the Degree (GVE-SIM). This committee is formed by representatives of students, teachers, stakeholders, faculty board, Vice-rectorate for QA and the Dean. The committee formally meets 3 times a year to identify, correct and monitor curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum. The GVE-SIM is provided information through the aforementioned representatives, relevant surveys and teacher coordination meetings (within subjects, horizontally within academic years, and vertically or transversally throughout the degree).

Table 3.1.1. Curriculum hours in each academic year taken by each student

Academic years	*Hours of training*							
	Theoretical training			Supervised practical training				
	Lectures	Seminar	Self-directed learning	Lab. and desk based	Non-clinical animal work	Clinical work	*Other	Total
Year 1	300	147	708	116	121	4	104	1500
Year 2	300	138	735	187	24	18	98	1500
Year 3	330	80	738	122	87	45	98	1500
Year 4	254	153	691	97	10	211	84	1500
Year 5	210	98	632	40	34	472	14	1500
Total	**1394**	**616**	**3504**	**562**	**276**	**750**	**398**	**7500**

(*) Other: Questions/answer and problem-solving sessions, Transdisciplinary projects (Ulab), UAX Skill School, online activities or simulations.
(**) Year 1 of the current academic year (2022-2023) is the first year to be affected by the UAX Plan for Pedagogical Innovation impacting teacher-student interaction. This change is not reflected in the table as it has not affected the evaluated years, but it is described in Area 1, under objectives.

Table 3.1.2. Curriculum hours taken by each student

Subject	*Hours of training*							
	Theoretical training			Supervised practical training				
	Lectures	Seminar	Self-directed learning	Lab. and desk based	Non-clinical animal work	Clinical work	*Other	Total
Basic Subjects								
Medical Physics	15	4	34	15	0	0	7	75
Chemistry	15	4	34	15	0	0	7	75
Animal biology, zoology and cell biology (includes animal ethology*)	30	12	94	11	10	4	14	175
Feed plant biology and toxic plants	11	9	65	11	0	0	4	100
Biomedical Statistics (and informatics)	60	60	166	0	0	0	14	300
Specific veterinary subjects								
Basic Sciences								
Anatomy, histology and embriology	150	22	255	30	90	0	28	575
Physiology	60	14	148	60	4	0	14	300
Biochemistry	30	14	62	30	0	0	14	150
General and molecular Genetics	30	7	80	26	0	0	7	150
Pharmacology, pharmacy and pharmacotherapy	60	14	132	30	0	0	14	250
Pathology	45	14	119,5	45	0	14	0	237,5
Toxicology	30	7	91	15	0	0	7	150
Parasitology	30	7	53,5	15	0	0	7	112,5
Microbiology	30	14	87	30	0	0	14	175
Immunology	15	0	38	15	0	0	7	75
Epidemiology	15	15	38	0	0	0	7	75
Animal nutrition	30	14	100	9	4	4	14	175
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	90	30	136	0	0	44	0	300
Diagnostic Pathology	60	8	113	14	0	30		225
Medicine (includes Therapy in common animal species*)	180	74	341	58	0	137	35	825
Surgery (includes Therapy in common animal species*)	60	30	138	0	6	54	12	300
Anesthesiology (includes Therapy in common animal species*)	15	7	63,5	0	0	20	7	112,5
Clinical practical training in common animal species	0	0	15	8	0	267	10	300
Preventive Medicine	15	4	37	7	0	5	7	75
Diagnostic Imaging	15	7	69,5	7	0	14	0	112,50
Propaedeutics of common animal species	30	19	49	0	0	20	7	125
Animal Production								
Animal production, breeding, husbandry and economics (includes animal welfare*)	124	58	338	27	40	0	38	625
Food Safety and Quality, VPH and OneHealth								
Veterinary Legislation, regulatory, off.control, veterinary forensic medicine	15	15	38	0	0	0	7	75
Control of food, feed and animal by products	30	15	3	15	5	0	7	75
Zonoses	15	15	38	0	0	0	7	75
Food Higiene and food microbiology (includes legislation, regulatory and official controls)	60	30	148	30	25	0	7	300
Food Tecnology	14	30	107	60	0	0	14	225

* Several EU-listed subjects are included in other subjects at VFUAX. For example, animal welfare is included in biology/ethology as well as in animal production and therapy of common animals. Professional knowledge topics are included in subjects such as Etnology and Bussiness Management as in all the soft skill courses that are displayed throughout the curriculum. Soft skills are included as courses and projects within subjects. They are graded activities and are associated with an official course diploma. Soft skills offered in the degree include communication, leadership, data management or group-work. Final Degree Project (TFG) amounts to 6 ECTS, 5 of which are self-directed learning and must be presented to an evaluation committee once all the other subjects of the degree are passed. These projects can be literature reviews of novel topics or research projects.

Table 3.1.3. Practical rotations under academic staff supervision (excluding EPT)

Types	*List of Practical Rotations*		*Duration*	*Year of Program*
	Discipline/	Specie	(weeks)	
Intra-mural clinics (VTH)	Medicine	Small animal	2	Year 4
	Medicine	Large animal (Eq, Rum)	1	Year 4
	Surgery	Small animal	1	Year 4
	Surgery	Large animal (Eq, Rum)	1	Year 4
	Anesthesia	Small and Large Animal	1	Year 4
	Specialties	Small animal (+exotics)	1	Year 5
	Surgery, Medicine and emergency	Small animal	2	Year 5
	Surgery, Medicine and emergency	Large animal (Eq, Rum)	2	Year 5
	Reproduction	(all)	2	Year 5
Ambulatory Clinics + Herd Health Management	Large animal (Rum. Eq)	Ruminants and equine	1	Year 5
FSQ & VPH	Slaughterhouses and related premises	(all)	1	Year 5
Electives	n/a			
Other	n/a			

Table 3.1.4. Curriculum hours taken as electives for each student

Electives	*Hours of training*							
	Theoretical training			Supervised practical training				
	Lectures	Seminar	Self-directed learning	Lab. and desk based	Non-clinical animal work	Clinical work	Other	Total
Basic Subjects								
N/A								
Basic Sciences								
History of Veterinary Sciences	15	12	38	0	0	0	10	75
Animal Experimentation	15	0	38	0	15	0	7	75
Clinical Sciences								
Therapy in exotic animals	15	0	38	0	15	0	7	75
Opthalmology	30	15	30	0	0	0	0	75
Dentistry	30	15	30	0	0	0	0	75
Emergency and Critical Care	30	15	30	0	0	0	0	75
Animal Production								
Ictiopathology	15	7	31	0	15	0	7	75
Food Safety and Quality, VPH and OneHealth								
Food Microbiology	30	15	30	15	0	0	0	75

▶ Core Clinical teaching

Clinical rotations that start the student's 4th year are preceded by specific seminars on:

- Biosecurity and biosafety at the Veterinary Teaching Hospital (VTH).
- Clinical history and record keeping.
- Treatment sheet planning and hospitalization.
- Computer program used at VTH for patient and client management (QVet).

Clinical rotations that start the student's 5th year and are preceded by specific seminars on:

- Biosecurity and biosafety at the Veterinary Teaching Farms / Reproduction Facilty (IEGRA).
- Biosecurity and biosafety at the ambulatory rotations.

Core clinical rotations and emergency services start at the UAX-VTH during the second month of the student's 4th year and are continued throughout this year and the 5th and final year. Group sizes range from 2 to 4 students per teacher depending on the rotation. Students' involvement includes history taking, patient evaluation, hands-on participation in clinical, image and laboratory diagnostics, treatment planning and recording, treatment if hospitalized patient follow-up if hospitalized, report /discharge instructions writing and explaining to the owner. The level of responsibility and hands –on involvement increases progressively throughout the 4th year up to the 5th year as students acquire more practice and knowledge and have had time to practice at the skill labs and on their different rotations. Reproduction practical training at IEGRA teaching farm and ambulatory services are offered to students in their 5th year. Group sizes have a maximum ratio of 4 students per clinician.

All of these activities are performed by the student with the assistance or close supervision of academic staff /clinicians.

▶ Teaching in slaughterhouses and in premises for food production, processing or distribution

Teaching in this area starts in 4th year and is continued throughout the 5th year. Group sizes range from 5 to 15 students per teacher depending on the nature of the practical training. Students involvement includes food elaboration like cheese and canned food, food inspection of vegetables, fruits, milk and dairy products, fish and meat, quality control protocol design and evaluation, specific testing for food contaminants and composition. These activities have been offered mostly at the Food Production Technology Plant in main campus due to restrictions derived from the pandemic in the second part of the year 19/20 and first part of the year 20/21. Food processing and producing establishments could be accessed normally only up to march of 2020 (start of lockdown in Spain). After march of 2021 the students have been authorized progressively to access different establishments for FSQ and VPH. Slaughterhouses maintained restrictions the longest not offering full entrance of normal groups until march 2022.

▶ Elective subjects

Elective subjects are offered to students in the 3rd and 5th year of the curriculum. Up to 60 positions are open in every elective subject. If an elective is closed and a student wants that specific track (normally only happens with exotic therapy and small animal emergency, and only with a few students), the Deans Office studies the possibility of opening up extra positions after an interview with the student and subject coordinator. Elective subjects usually can be assigned 2 % more positions under the right circumstances.

▶ Logbooks

Logbooks are used by all students to ascertain achievement of core practical and clinical activity in clinical, ambulatory clinics and on EPT (during EPT the student must summarize activity by not in a formal logbook). Logbooks include procedure check-lists for 4th year clinics and animal, specie and disease/procedure for 5th year clinics.

Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.

The VEE must also describe how it encourages and prepares students for self-learning and lifelong learning.

As part of the VF strategic plan (2021-24) the study program, subject guides and their adequation to the ESEVT DOCs have been intensely evaluated (comparative mesh in Appendix ()). The Dean´s Office has been verifying the subject guide every academic year and evaluated through meetings with subject and area coordinators, and results of QA enquiries, that the program has been followed and intended outcomes have been achieved. The qualification of the Veterinary Degree at UAX is recognized

by the Spanish Ministry of Education. Results of QA processes help improve the performance of the different subjects helping for example identify the need of an updated bibliography in toxicology or the re-arrangement of the practical teaching in propedeutics to allow more time for the student with the animal.

The VF promotes an academic environment where students are challenged to think in a critical way, to consult recent literature and publications to obtain information based on research and evidence, to resolve problems, by the hand of active professionals that are experts in their fields. Students are encouraged to participate in research and multidisciplinary projects (individually and in groups) as well as to develop a culture of self-learning, by sending individual assignments or challenges. The importance of lifelong learning is underlined to students throughout the entire degree, offering them the opportunity to assist or participate in courses offered at the VF, VTH or associated/ participating establishments as well as discounts and free online material.

Standard 3.3: Programme learning outcomes must:

- **Ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework.**
- **Include a description of Day One Competences.**
- **Form the basis for explicit statements of the objectives and learning outcomes of individual units of study.**
- **Be communicated to staff and students.**
- **Be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.**

As mentioned in Standard 3.2., the VFs strategy has included a review in depth of the curriculum. The VF has made sure that all the ESEVT Day One Competences (DOC) are included in the curriculum learning outcomes by developing a comparative mesh where every subject has identified the covered DOC. All of the required DOCs by ESEVT are covered by UAX VF curriculum as shown in appendix ().

Overall learning outcomes where described and decided when the UAX veterinary degree was authorized by Spanish authorities, but they have been re-evaluated and updated to include and reinforce acquisition of soft-skills or specific DOCs by the new management team (Dean office) based on QA system (SIM- Committee for follow-up and improvement of the degree) results and a profound study and reflection of the degree. Duplicated content has been limited and a cohesive method of assessing as well as a rational temporality of contents has been applied throughout the degree.

Learning outcomes are being evaluated yearly after this first reflection process and changes and improvements put in place as soon as possible. Changes in learning outcomes are communicated to students, staff through their representatives, subject guides, QA SIM meetings and the degree website (Chief of Studies page).

Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:

- **Determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum.**
- **Oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes.**

- **Perform on going and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned.**

- **Identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.**

The VF oversees the curriculum and its delivery through various teams and committees:

- **Deans' office or Dean workgroup:** area coordinators meet with the Dean once a month throughout the academic year to report activities and concerns, evaluate teaching, collect student and staff input on daily development of the degree. Monthly assignments and actions are derived from these meetings to solve everyday problems regarding the delivery of the curriculum. Minutes of these meetings are shared monthly with the Governing Council. Examples of problems addressed: farm visits are not being communicated in a timely manner to students and students are missing lectures to join the visits, practical training must be rescheduled at a teaching farm due to damage by a snowstorm or coordination issues with the multidisciplinary activities.

- **Evaluation meetings:** delivery and content of the curriculum is also addressed during the evaluation meetings where each subject coordinator shares with the Deans office their subject grades, talks about changes implemented (those committed in the beginning of year report or any new one), reflects on results and offers a plan for improvement. These meetings happen 3 times a year (February, June and July) with coordinators, and once a year all the teachers and coordinators are invited to share impressions and action plans towards the curriculum. Minutes of these meetings are shared with the Governing Council. Examples of problems addressed physiology and pathophysiology contents and teaching methods have been updated and improved since deficiencies in specific knowledge were reported by coordinators of related clinical subjects in these meetings or examination protocol was improved to better felect learning outcomes in some subjects.

- **Committee for follow-up and improvement of the degree (SIM).** This committee includes representatives from the Quality Vice-Rectorate, the Deans office, staff of all areas and years of the degree as well as students and stakeholders. This committee reports to the rectorate via the vice-rectorate and meets 3 times a year and reviews information from evaluation meetings and Deans office activities, QA queries, information reported by students and staff representatives and stakeholders. Examples of problems addressed: contents and bibliography for toxicology were updated, online materials were not being uploaded to the platform on time or staff request extra lectures to review parts of a subject that has proven conflicting.

All these reviews lead to continuous improvement. Any action taken or planned as a result of this review is communicated to all those concerned via student, staff and stakeholder representatives and on our website.

Standard 3.5: External Practical Training (EPT) is compulsory training activities organized outside the VEE, the student being under the direct supervision of a non- academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH).

Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education inter alia by enhancing student's professional knowledge.

UAX Veterinary Degree includes EPTs in the subject called Preprofessional Practical Training (preceptorship) in the 5th year of the curriculum. This subject amounts to 24 ECTS , from which 12 ECTS are of EPTs in the area chosen by the student. Students must complete a minimum of 200 hours of EPTs but must first clear the chosen establishments with the VF (VF reviews standard and prior feedback received from students), have the establishment sign the official agreement with UAX, receive a grade and give feedback on the establishment. The rest of the ECTS (12) the student has intramural rotations or scheduled extramural academic training.

These EPT complement the training received at the VF as all the necessary core training is received in the academic curriculum. These preceptorships give the student the opportunity to further develop their skills in a chosen field, undergo their trail periods in their future internship establishments or try a specific field they are considering for their professional future.

Table 3.5.1. Curriculum days of External Practical Training (EPT) for each student

Fields of Practice (EPT)	*Minimun Duration*	*Year of Program*
	(weeks)	
Production animals (pre-clinical)	N/A	
Companion animals (pre-clinical)	N/A	
Production animals (clinical)	4.5	Year 5
Companion animals (clinical)	4.5	Year 5
FSQ & VPH	4.5	Year 5
Others	4.5	Year 5

Standard 3.6: The EPT providers must have an agreement with the VEE and the student (in order to state their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the VEE on the EPT programme.There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.

The EPT providers hold an agreement with the VF by which they agree to receive, train and assess students in their establishments. They are required to provide a feedback regarding the student performance, attitude and knowledge. A copy of one of the agreements is provided in the appendix. EPT agreements include insurance.

The VT academic staff responsible for the supervision of the EPT activities are Maria Alonso de Diego and Alexandra Marin Baldo-Vink.

Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.

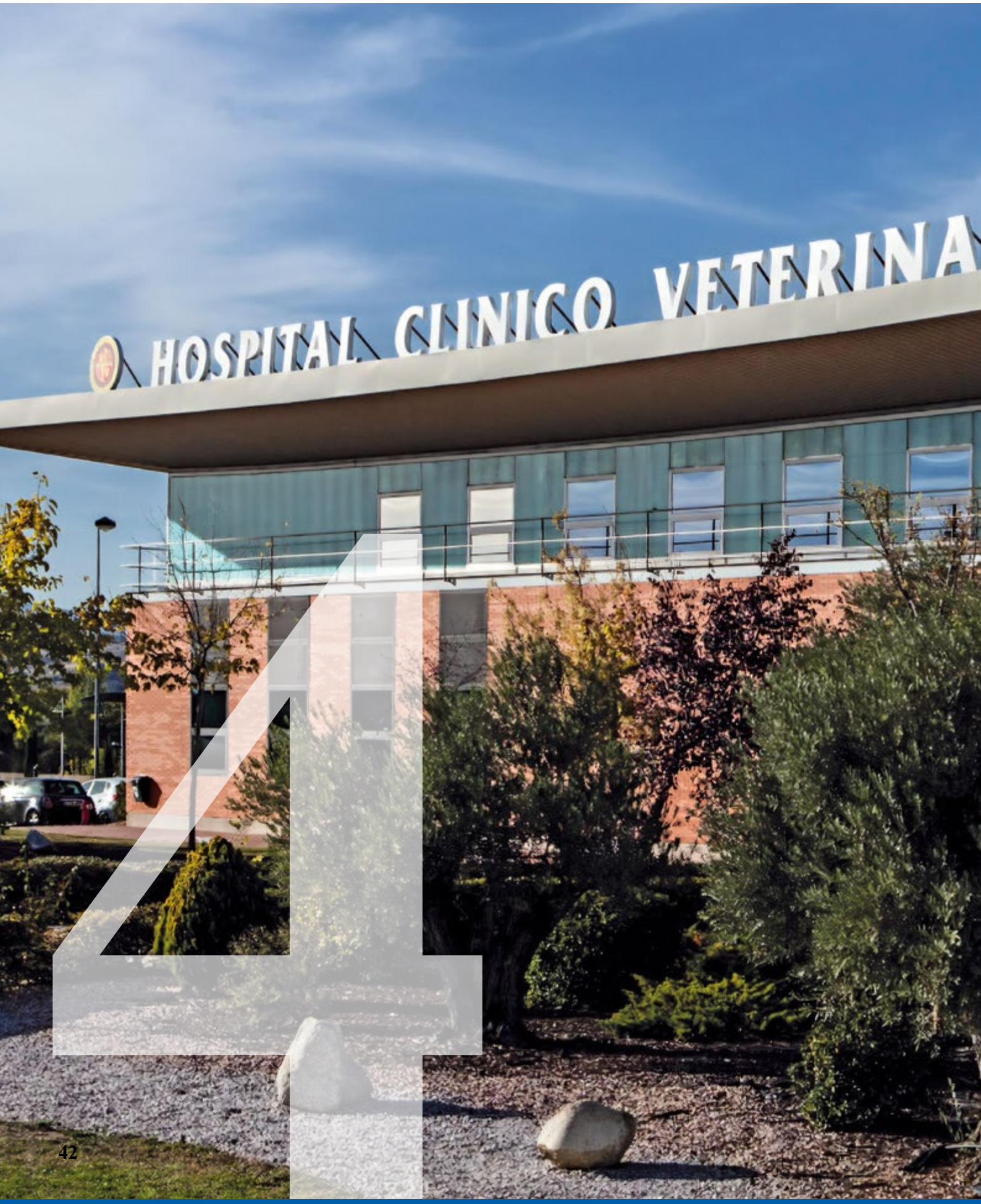
- Students are responsible for their own learning during EPT: they must complete a literature review of a chosen topic/s related to their EPT and must send this project for evaluation to the VF together with a summary of activities.
- Students evaluate their EPT establishment and may complain to the subject coordinator at the VF. Complaints are written via email to the coordinator.
- EPTs are monitored in Evaluation Meetings, Dean work-group and SIM meetings.

Comments on Area 3

The current Deans Office has studied the curriculum and its delivery profoundly from January 2020 and has started implementing short-term and mid-term changes and improvements such as reinforcing practical training in all the areas of the degree and updating contents to assure a full compliance with the EU directive. Multidisciplinary projects (Ulab) and the UAX skill school have been deployed in almost every academic year, and QA systems have been effectively implemented and communicated to the VF community.

Suggestions for improvement in Area 3

- The new pedagogical paradigm (where lectures become more active and dynamic, and assessment are based on challenges and problem-solving) will be in the first year of the degree in 2022/23. When new teaching methods are deployed throughout the degree, positive outcomes are expected in the delivery of the curriculum.
- Certain curricular aspects have had to be re-introduced after the pandemic but adapted to the new requirements of, for example food-producing establishments or slaughterhouses. Training in these areas has been re-inforced with intramural activities but the active establishment of agreements with new slaughterhouses must be continued so more extramural training can be offered to the students.
- Overall practical training hours and indicators should be increased and therefore UAX VF is actively working through the Conference of Veterinary Deans with Spanish authorities to extend veterinary training to a 6-year program so an additional 60 ECTS can be reassigned to hands-on training.
- This change will also be used by the VF to implement improvements in the core curriculum like creating an animal welfare subject. Working towards this goal there is already an assigned committee of academic staff that are welfare experts or receiving training so this area can be re-inforced in the near future.



4

Area 4

Facilities and equipment.

Area 4. Facilities and equipment.

Standard 4.1: All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary VEE must have a clear strategy and programme for maintaining and upgrading its buildings and equipment. Facilities must comply with all relevant legislation including health, safety, biosecurity, accessibility to people with reduced mobility, and EU animal welfare and care standards.

The UAX VF is an integrated part of the Villanueva de la Cañada university campus, housing classroom buildings (building A and D), laboratories (buildings B and C), a Food Technology and Inspection Plant (in building B), a Veterinary Teaching Hospital with 5000 m^2 (VTH) with a Simulation Laboratory for clinical skills, and a specific Research Laboratory (first floor of the VTH). The two extramural facilities used as teaching farms are located (1) 30 km away in Navas del Rey and (2) 110 km away in Talavera de la Reina (All of these facilities are described in further detail throughout the Chapter).

The overall strategy of the VF towards facilities is to create learning environments adapted to interactive learning, group-work and equipped with last generation technology. VF facilities and equipment, as well as overall actions at main campus and at teaching farms are coordinated and overseen by the Vice-Rector of Operations. Budget and timing of maintenance and upgrades to the facilities are included in the VF Strategic plan (2021-24) that is presented by the Dean´s Office and are approved by Government Council and the Board of Directors. This plan has included improvements such as building of new chicken coops and repair of fences and roofs of animal enclosures after damage produced by snowstorm in early 2021 in the Navas del Rey teaching farm, purchase of additional anesthesia machines, portable ultrasound machine and new digital radiology equipment for large animals to improve learning experiences and opportunities for the students or refurnishing of the Simulation Lab with new models and a digital board (PDI).

The Maintenance Department of and the Vice-Rector of Operations oversee that all the physical facilities comply with all national and local legislations. Biosecurity, biosafety, animal welfare and care are overseen by staff members allocated to the labs, VTH and teaching farms.

Standard 4.2: Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food service facilities.

Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.

Premises for lecturing:

The VF students attend lectures in approximately 30 classes distributed mainly in the D and A building in main campus. Additionally, the VTH and teaching farms each are equipped with updated lecture rooms. Lectures take place overall in 3 types of classrooms (all have computers, projection, and audio systems):

- Large size lecture rooms: hold up to 64 students at a time.
- Medium size lecture rooms: hold up to 32 students at a time.
- Small size lecture rooms: hold up to 15 students at a time.

Approximately 50% of these rooms are newly rebuilt classrooms and are equipped with PDI screens and new furniture. Main campus also offers possibility of holding hybrid and interactive lectures on state -of-the -art lecture rooms called steelcase and on the main lecture hall with a capacity of up to 180 students.

Premises for group-work:

Specific areas are distributed throughout UAX main Campus (in all the buildings) for group-work. These areas range from classrooms with movable furniture so that tables and chairs can be arranged in groups, co-working spaces with big tables and seating for up to 10 students or smaller rooms for fewer students with sound protection. Spaces for group-work are also available at the VTH and teaching farms, including outside facilities.

Premises for practical work:

The VF students have access to a total of 10 laboratories at the UAX main Campus where they receive practical training in all the basic subjects and basic sciences. These laboratories are equipped with common features such as microscopes, centrifuges, gas extraction hoods, fridges and freezers, ovens, shakers, filters and scales and basic laboratory supplies. Specific laboratory equipment includes bacteriological culture ovens, spectrophotometer, ELISA readers, cell counters, sterilizers, PCR analyzers, microplate readers. All laboratories have space for 30-35 students, 2 teachers and 1 support staff. 30% of these laboratories have PDI screens.

The food technology plant and laboratory facilities at VTH and teaching farms are described elsewhere in this chapter.

Premises for skill labs:

The VTH holds a Skill Lab dedicated to clinical skill development with surgical tables, chairs, digital board and the following models:

- Dog and cat intubation.
- Forelimb for blood collection.
- Ovariohysterectomy simulators.
- Urinary catheterization simulator.
- One horse for blood collection, intramuscular injection in the neck, rectal palpation, palpation of the reproductive tract, palpation of the distended intestine.

Premises for study and self-learning:

- 670 study seats at the Main Campus Library.
- 50 individual study seats at building A and 15 at building C.

Canteen and Catering:

- UAX food services include a renewed space (Main food court) with a variety of food options including international dishes from breakfast to dinner. It offers a cafeteria area, healthy zone, Italian, American and Asian corners.
- A FoodTruck is also available at the library entrance, as well as a coffee, snack and food corner in building D.
- VTH and teaching farms also offer eating areas (further described in next standard).

Lockers, toilets and showers:

- Lockers, toilets and showers are situated throughout the main campus, laboratories and at the VTH. The IEGRA and Navas facilities have changing rooms and bathroom for boys and a changing room and bathroom for girls.

Accommodations for on call students:

- The VTH offers an eating and resting area on the top floor with tables, chairs, microwave, fridge and bunkbeds (sleeping is not allowed during 12-hour shifts as there is always plenty of clinical activity or animal husbandry to do).

Leisure:

- UAX Fitness Center: more than 100 gym machines connected to the Bh Loop APP for workout follow-up. This APP offers reservation possibilities as well as including class timetables and sport tips.
- Tenis and Paddle School.
- Rugby Club.
- Adjacent Golf Club with special access conditions for students.
- Green areas.

Others:

- Amazon Locker.
- Electric car chargers.

Staff offices, space for teaching preparation and Research Laboratories:

- The Dean, secretary and Dean´s Office Team and VTH Director have individual offices located in the D building and at the VTH.
- Academic staff have open-space offices with access to computers and printers in the D and A Building, as well as in the VTH and teaching farms. Support and academic staff also have access to preparation and office spaces at the different laboratory buildings, VTH and teaching farms.

- The main research laboratories are located in the first floor of the VTH building (described further in Area 10). Teachers and students have access to adjoining research laboratories in buildings holding teaching laboratories (Building T and B) as well as a fully equipped reproduction laboratory at IEGRA.

Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purposes must:

- **Be sufficient in capacity and adapted for the number of students enrolled in order.**
- **To allow safe hands-on training for all students.**
- **Be of a high standard, well maintained and fit for the purpose.**
- **Promote best husbandry, welfare and management practices.**
- **Ensure relevant biosecurity and bio-containment.**
- **Be designed to enhance learning.**

▶ 1. VETERINARY TEACHING HOSPITAL

The UAX VTH is a national reference center that is included in the campus of Villanueva de la Cañada. Its 5,000 square meters allow enough dimensions to house all students enrolled in the clinical practical training of the VF and to ensure the best husbandry and management practices to patients. Its modern facilities are equipped with advanced medical and diagnostic technology and are designed to receive and treat all types of animals, always ensuring their welfare.

It has a reception that serves as waiting room of 350 square meters for owners, equipped with three computers and one of the most used software for veterinary clinical management in Spain, QVET®.

The VTH is divided into two areas:

1.1. Small animal area:

Consultation Rooms

- 3 rooms for general consultation, equipped with examination tables and one ophthalmoscope and otoscope. They have a desk and a computer connected with the management software.
- 3 rooms for neurology, traumatology, surgery, ophthalmology, dermatology, oncology, and exotic animals consultation.
- 1 oncology room with fume hood for the preparation and administration of chemotherapy.

Surgical area:

- Operating room 1: it is destinated for soft tissue, emergencies and neurology and ophthalmology surgeries. This operating room is equipped with an anesthesia machine, gas outlet, surgical aspirator and a microscope for these specialties.
- Operating room 2: Traumatology procedures and minimally invasive surgeries take place at this operating room. It is endowed with a rigid endoscopy tower (Arthrex®) that permits to record all procedures and a monopolar and bipolar electrosurgical scalpel, and an arc for interventional radiology. It is fully integrated and has bidirectional audio and sound communication with one of the VTH teaching room. All procedures are recorded, and are available to be reviewed and discussed with students.
- Operating room 3, for exotics and flexible endoscopy. It has a flexible endoscope for digestive and a bronchoscopy procedures.
- Dentistry operating room equipped with oral radiology and an own x-ray and anesthesia machine.

All the high-quality surgical material used in the operating rooms is cleaned and sterilized in a sterilization room endowed with a steam and a plasma autoclave.

Emergency and Hospitalization Area:

This is an area prepared to attend any type of emergency. It includes unstable patients, hospitalized or coming from the emergency room in critical condition, who are at risk of cardiorespiratory arrest. This area is divided in different rooms:

- The emergency room: equipped with a crash-cart, oxygen supply, multiparametric monitor, point of care ultrasound, gas analysis, aspiration and suctioning system and material to perform procedures such as peripheral catheter placement, endotracheal intubation, thoracocentesis or abdominocentesis.
- Intensive care unit, with 8 cages, one incubator and one ICU-crib. Also equipped with oxygen supply, two multiparametric monitors and telemetry monitoring system; point of care ultrasound, infusion pumps and perfusors and an ICU mechanical ventilator. Also, there is a fridge for blood product storage available for hospitalized patients.
- Hospitalization:
  - Day and long-stay dog hospitalization: with 8 cages for small dogs and 10 boxes for medium to large dogs.
  - Cat hospitalization: with 5 cat friendly cages (3 with silver certification and 2 with Golden certification).

- Exotic animals: equipped with natural light in order to maintain the photoperiod, 1 incubator for birds and reptiles, 2 nebulizers for respiratory pathologies, 6 cannulas for the oral probing of birds, 6 UV/UVB radiation lamps for reptiles, 6 thermal blankets for small exotic mammals and 3 infrared radiation bulbs for medium and big exotic mammals.

    - Amphibians, reptiles and insects: 10 fauna boxes.
    - Rodents and small birds: 4 small cages.
    - Medium-sized exotic mammals like rabbits and large birds: 2 cages.
    - Large animals or animals that require greater movement: 1 cage.

- Isolation area: it's a separate room fully prepared to comply with all the appropriate biosecurity measures. Each box/cage is equipped with individual material (stethoscope, thermometer, gauzes, etc).
    - Dog: 1 large box, 1 medium cage, 2 small cages.
    - Cats: 2 cages.

The hospitalization area is provided with several monitoring units (ECG, PANI, SPO2), oscillometry or doppler for non-invasive arterial pressure measurement, portable devices for glucose, lactate and ketone body measurements, as well as arterial and venous blood assessment, an ultrasound scanner, an aspirator for nasal or oral secretions and several infusion pumps.

Rehabilitation room: it is provided with innovative therapies and unique facilities in Madrid to carry out veterinary physical therapy and rehabilitation treatments needed in small animals (underwater treadmill, rehabilitation pool, electrostimulation, therapeutic ultrasound, infrared laser IV, cryotherapy, massage, passive kinesitherapy, assisted and controlled active exercises).

1.2. LARGE ANIMAL AREA:

This section comprises the equine, small ruminant, bovine and pig patients admitted to the VTH. It is divided in different subareas that are specie-specific:

Consultation Rooms:

- 1 room for general emergencies reception and general consultation, equipped with a horse stock where clinical procedures can be performed. Patients are aseptically prepared in this room when a contaminated surgery is required.
- 1 room for musculoskeletal examination and therapy, and patient pre-surgical preparation for surgeries classified as clean. It consists of a horse stock, a storage cabinet and a portable ultrasound machine.
- 1 examination room in the equine isolation area. It has a horse stock, a portable ultrasound scanner, a table and a storage cabinet.

Surgical area:

- **Operating room 1:** destinated for contaminated surgeries, where colic procedures, wounds, castrations, infected joints and tendon sheaths lavages, etc. are performed. It is equipped with an adjoining padded induction box, an operating theatre, a storage room and a padded recovery box. The induction and recovery boxes are connected by an electrical hoist for the handling of the anesthetized horse. The surgical room is equipped with an operating table and an anesthetic machine, and all surgical material needed. The induction box has a containment system for the induction of the patient, and the recovery box is padded on all walls, that permit the safe induction and recovery from general anesthesia.
- **Operating room 2:** destinated for clean surgeries, where procedures such as arthroscopies, fractures, upper respiratory surgery take place. This operating room is equipped with an induction box, an operating box, a storage room and a recovery box, and is equipped as the aforementioned room 1, and arthroscope, fluoroscope and equipment for the protection of X-ray personnel is added. In this surgical room there are 3 cameras to view the arthroscopy images, one for a panoramic view of the room and another that shows the surgical field.

All the high-quality surgical material used in the operating rooms is cleaned and sterilized in a sterilization room endowed with a steam and a plasma autoclave.

Hospitalization for Horses:

- **Zone 1 (Low-risk area):** Healthy horses with no signs of systemic disease or with diseases caused by agents with a very low potential for human and other animal transmission (musculoskeletal examination and surgeries, diagnostic imaging procedures). It has 21 boxes, with a window to the outside, door and automatic drinking trough.
- **Zone 2 (ICU area):** reserved for neonatal foals and adult horses that need intensive care. All boxes have an oxygen and vacuum intake and an automatic drinking trough.
- **Zone 3 (isolation area):** It is located in a separate building. The isolation unit consists of 5 boxes, a central corridor and a storage room. Four of the boxes have a window giving access to the inside of the building. Each isolation box is 4x3 m in size and has two pre-rooms, one of which communicates with the central aisle and the other with access to the outside.

Hospitalization for Ruminants and Pigs:

- **Regular boxes:** Small ruminants and calves without signs of systemic disease, coming from healthy livestock farms free of infectious diseases and who are admitted for trauma or for scheduled surgeries, will be hospitalized in this area. There are 5 boxes, with galvanized iron doors of double leaf, with cement walls, printed concrete floors, and an automatic water bowl.

  Adult bovine patients are hospitalized in an external paddock next to the cattle stock and the relevant biosecurity measures are adopted according to the suspected pathology.

- **Isolation area:** This unit is located in an independent building, consisting of 5 boxes, 2 with a complete enclosure completely separated. The boxes have a closed window located at the top rear of the box, concrete walls and floors, and individual automatic water bowls. There is a central drain to promote cleaning and disinfection. Calves and small ruminants admitted to the VTH with a history of abortions, abscesses, fever, diarrhea, leukopenia, or other contagious clinical signs, or in the event that the origin is unknown (such as ruminants collected by sanctuaries) are hospitalized in the ruminant/pig isolation house. Pig patients admitted to the VTH are always hospitalized in this isolation unit in those boxes that are provided with a complete enclosure.

Physiotherapy and Rehabilitation:

It is provided with a horse walker, a Heated pool for rehabilitation and training, a treadmill and electrical therapies and laser IV.

1.3 COMMON VTH SERVICES:

Diagnostic Imaging Area:

- **Ultrasound room:** with two scanners with several transducers adapted for small and large animal use, and one portable machine. All equipment is connected to a PACS for subsequent image reading and storage.

- **Radiography room:** Equipped with a digital CR radiography system and a DR mobile radiography equipment. A computed tomography scanner is also available for animals under 150 kg. This area is divided in two rooms, one for small animals and the other for equine patients, that are separated by a small corridor where the CT computer and images processing take place.

- **Magnetic resonance imaging room:** a low-field standing open magnetic resonance (Hallmarq®) is available for use in horses.

Anesthesia:

- **Small animal induction area:** where animals are pre-medicated and induced before entering the operating room and where all dirty procedures such as wounds and colonoscopies are performed. This area is provided with an anesthetic machine for invasive and non-invasive cardiovascular monitoring, respiratory monitoring, assisted and controlled breathing, thermal blankets, fully intravenous and inhalation anesthesia, residual anesthetic gas extractors, perfusors, infusion pumps, neuromuscular monitoring, etc.

- **Small animal recovery area:** room with 5 cages for animals that undergo ambulatory surgeries and do not require the care of the ICU service.

- **Large animal induction and recovery rooms:** previously described.

Central inventory and dispensary area:

Organization and storage of general material and drugs used in the VTH as part of clinical procedures and prescript therapies are delivered to the VTH veterinarians.

Pathological Anatomy Service:

It has a reception room, a laboratory for sample processing and a necropsy room equipped with tables and a refrigeration and freezing chamber.

Clinical Pathology Laboratory:

For hematology, biochemistry, basic microbiology and inmunoflorescence analysis.

In addition to these common services, there are two classrooms destinated to the on-hands training, equipped with animal models and simulators (previously described), as well as for the reviewing of surgeries performed at the small animals and equine operating room 2 and the discussion of clinical cases and clinical rounds with students.

► 2. TEACHING FARMS

2.1. IEGRA:

Facilities consist of an adjoining farm, on the Madrid-Extremadura road at kilometer 116,500. It extends over an area of 35,000 m^2, with two buildings, one of 400 m^2 for food storage and machinery for animals and another of 1,000 m^2 where the animal handling stocks and laboratories, offices, a classroom, changing rooms and services are located.

In the interior area of the main building, completely isolated from the animal housing and handling facilities, there are 300 m^2 for 2 laboratories, one for semen processing and the other for embryo manipulation, 2 toilets, 2 changing rooms, 2 offices and a classroom-library with capacity for 24 people. As rest areas for students, the facilities have a dining room with kitchen, refrigerator, microwave with a capacity for 30 people. In the main building there is a hall with a coffee machine and snack dispenser and armchairs. Externally to the main building there are patios or pens where the animals are kept and with easy access to the interior. Attached laterally to the main building are the bull yards with direct access to the interior, as well as the horse boxes.

The semen and embryo laboratories are equipped with specific materials for animal reproduction based on the latest advances in seminal freezing and manipulation of oocytes and embryos, with a total of 250 m^2 dedicated to these tasks. Both laboratories have a capacity of 24 students for the development of practices. The embryo laboratory has 3 windows for ventilation and 3 air conditioning units for hot and cold air. The semen laboratory has 2 windows for ventilation of the room and an air conditioning device using hot and cold air.

The material available in the laboratories for the practical training of students is:

- Autoclave for material sterilization.
- 4 Water bath.
- 2 laminar flow chambers.
- Two phase contrast microscopes, one of them inverted.
- Freezer.
- Refrigerator.
- Single use pipettes.
- 3 Incubators with oxygen and CO2 control.
- Straw packing and sealing machine.

- Straw identification and marking machine.
- Embryo micromanipulator with inverted microscope.
- ®Chromatyc Sex system for semen sexing through filters oily cytochromes Official Registry Ministry of Agriculture 11119-RD).
- ISSAS sperm motility analysis system.
- 3 binocular loupes.
- 2 Automated biofreezer.
- 1 high-capacity liquid nitrogen thermos for 90.000 dose storage.
- 10 liquid nitrogen thermos with storage of 8.000 doses.
- 3 precision scales.
- Spectrophotometer.
- 4 centrifuges.
- Thermic control plates.
- Ultrasonic straw sealer.
- Automatic pipettes.
- 4 air purifiers.
- MiniVIDAS for detection of estrogen levels and blood progesterone.

Inside the main building are the mannequins for collecting equine semen and the handling stocks for cattle. The entire design of these structures has been developed as a result of the company's activity in the sector for several years, seeking the safety of the operators and students and reducing the stress factor for the animals during their handling, optimizing animal welfare. The animal management area has an area of 740 m^2 with a large work space for students. All the cattle yards have an automatic feeding system that dispenses food to the animals twice a day at a fixed time, which stimulates the welfare conditions of the animals.

2.2. KUNA IBERICA:

The Kuna Iberica center (in Navas del Rey) is located in the transition zone between the Sierra del Guadarrama and the Sierra de Gredos is the region known as the Alberche and Cofio river holm oaks. This region located to the west of the community of Madrid was classified as a special protection area for birds (Z.E.P.A. nº 56) in 1990, becoming the largest protected area in the community. Later in 2010, with the entry into force of the Natura 2000 Network, it was renamed a special conservation area for the Alberche and Cofio river basins (Z.E.C. Alberche and Cofio river basins). The center has an area of 80,000 m^2 dedicated to wildlife and farm animals as well as practical training and teaching of students. In addition to the enclosures destinated for the animal husbandry, there is a clinic, endowed with a quarantine area and a hospitalization section.

Wildlife enclosures:

It extends over a total of 3 hectares and is divided into the following zones:

- **Large mammals:** there are 7 buildings with shelters and handling space, that comprise an enclosure for wolves (800 m^2), ibex (850 m^2), mouflons (600 m^2), deer (5000 m^2), roe deer (400 m^2), and wild boars (400 m^2).
- **Medium mammals:** there are 5 buildings with shelters and handling space, that comprise an enclosure for foxes (50 m^2), ferrets (10 m^2) and genets (20 m^2).

- **Raptors:** there are 12 area for diurnal (145 m^2) and nocturnal birds (these last have a shading zone in order to minimize the impact of daylight) with an extension of more than 300 m^2. There are the following spaces: 145 m^2 for owls. These enclosures also include 5 overhangs (25 m^2 each) located in the quarantine area.

- **Other birds:** exotics (parrots and lovebirds - 25 m^2), aquatic birds (this open-space has 4 lagoons of large dimension of 5000 m^2), and crows (15 m^2).

Enclosure for domestic mammals:

This space is intended to house domestic mammals that have suffered from abandonment such as rabbits, chinchillas or guinea pigs. The dimensions of these enclosures are 6 m^2 and are designed to ensure the welfare of resident animals.

Enclosures intended for farm animals:

Exotic animals (90 m^2), native animals (5000 m^2) and poultry (150 m^2, with an open free space each enclosure) with 5 chicken coops that serves for the promotion of breeds of special interest and another 3 for turkeys and other breeds.

Clinic and hospitalization and quarantine areas.

A 50 m^2 independent building serves as the veterinary clinic and is equipped with an examination table, microscope, two hospitalization boxes for small animals and three quarantine boxes.

Consultation and treatment room:

This space is enabled to be able to carry out nursing care, treatments, small procedures and surgeries on resident wild and farm animals by students. It is equipped with an exploration table, microscope and centrifuge.

Classroom:

90 m^2 space endowed with audiovisual equipment to the theoretical syllabus teaching, with a capacity for 40 students. It is WIFI connected and allows for co-working, clinical discussion and studying.

Cafeteria and resting area:

The center has a cafeteria where students can have soft drinks, coffee and snacks as well as a microwave. Adjacent to it there are 3 covered picnic areas for students.

Multi-purpose room:

Dedicated mainly for egg hatching and chick examination room. It includes: an incubator, hatcher, and cages for chickens and broilers. Students actively hand-on participate in all the different phases of poultry production.

▶ 3. FOOD TECHNOLOGY AND FSQ / VPH

3.1. Food Technology Teaching Plant.

Our plant is located within UAX Main Campus, in building B. It comprises a 300 m^2 laboratory with the necessary equipment and material to produce meat products, cheese and cheese products and to evaluate food characteristics (conductivity, psychometric properties, humidity …). It can hold 30 students and two teachers at the same time, and includes ovens, freezers, controlled temperature room, pasteurizer, slicer, and a microbiological safety hood.

Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical train-

ing supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures.

For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH.

The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the best available in the private sector.

The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.

The UAX VTH is open 24/7, all year round. The VTH consists of two different areas according the animal species attended: the companion animal (canine, feline and exotic animals) and the large animal (equine, cattle, small ruminants, and pigs) areas. Both services are provided with clinical appointments from 08:00 to 20:00 both for general (Medicine and Surgery) and specialist consultations (Dermatology, Ophthalmology, Odontology, Neurology, Oncology, Diagnostic Imaging, Physiotherapy and Rehabilitation, Traumatology and Soft Tissue Surgery, Minimally Invasive Surgery, Orthopedic, Reproduction, Ethology, and Exotic Animals). There are also an Emergency and Hospitalization service 24/7 with independent canine, feline, exotic animals, equine and cattle and small ruminant facilities and staff. Emergencies and hospitalizations are handled by on-duty and on-call clinicians.

Ambulatory clinics and teaching farms run from 08:00 to 20:00, Monday through Friday for scheduled appointments and day-time emergencies for equine and ruminant patients.

The VTH, teaching farms, ambulatory services and any hospitals, practices and facilities used for EPT are nationally licensed establishments or service providers.

The clinics at either VTH, farms or ambulatory service are organized in groups of maximum 4 students per clinician so hands-on experience is enhanced. Students participate in the history taking, examination of animals, diagnostic and treatment plan elaboration as well as procedures for scheduled patients and emergencies. VTH activities start in the 4th year and increase in hand-on opportunities and student responsibilities along the academic year, being maximised in the 5th year clinic, farm and ambulatory activities.

The UAX Veterinary Faculty meets national practice standards as clinical activities are always performed or directly supervised by licensed veterinarians (national and local professional organizations).

Standard 4.5: The VEE must ensure that students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services, pharmacy and necropsy facilities.

Students have access to diagnostic and therapeutic facilities like the diagnostic imaging, anesthesia, clinical pathology, pharmacy, intensive and critical care, surgeries and treatment facilities of the VTH during clinical practical training of 4th and 5th year. Necropsy facilities are open to students from 3rd year on (curricular practical sessions take place for necropsy studies in the 3rd year and then students attend clinical case necropsies or carcass examination during their VTH training in the 4th and 5th year). Most of these services and facilities are also offered at the teaching farms used by students from 2nd year on. Students have access to the ambulatory service in the 5th year.

Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care and for prevention of spread of infectious agents. They must be adapted to all animal species commonly handled in the VTH.

The Veterinary Teaching Hospital of the University Alfonso X el Sabio (VTH UAX) is divided into two areas, the large and the small animals, that has its own isolation units.

The large animal area holds two isolation units, one for the equine species, and another one for ruminant and pig patients. The equine isolation unit is located in an edification separated from the other buildings. This isolation unit is composed of 5 boxes, a central corridor and a storage room, accessible across a footbath of Sanivir® (glutaraldehyde and quaternary ammonium) with special shoes. Four of the boxes possess a window giving access to an internal part of the room, two being crystallized (1,20 x 0,60 meters) and the two remaining ones being open (1,40 x 0,60 meters).

Every isolation box measures 4,0 x 3,0 meters and has two anterooms. The internal anteroom communicates with the central corridor, and the external anteroom gives access to the exterior, from where the horses enter the boxes.

The internal anteroom measures 3,0 x 0,8 meters, delimited by a 1,20 meters high wall. On the external part, there is a glove distributor, and in the anteroom itself there are two pairs of rubber boots, a footbath, a broom and a dustpan, a box containing small equipment (needle container, stethoscope, thermometer), a suspended trashcan, and a coat rack for the individual protection equipment. Each of these three areas possesses their own individual sink to avoid any contamination between them when they get cleaned.

The external room measures 2,70 x 1,90 meters and contains a foam pistol with Sanivir® disinfectant, a footbath, a box to store cleaning and feeding tools, a container and a basket with disinfectant (Sanivir® 1%), in which the cleaning material for the patient's bed is immerged.

The isolation area also contains a room to examine the isolated patient avoiding the access to the common areas of the hospital.

The ruminant and pig isolation unit is located in an independent building. It contains five boxes, including three completely closed. The size of the open boxes is 2,5 x 3,0 meters, and the size of the closed boxes is 2,0 x 4,0 meters. Every box has a 1,5 x 0,6 meters window located on the top back of the box. In the central part of the edification, there is a grating sink to facilitate cleaning and disinfection. In this unit small ruminants, calves and pigs suspected of suffering an infectious-contagious disease are hospitalized. There is a footbath in the building's entrance with Sanivir® 1 %, where shoes used to access the common

corridor are permanently immersed. To access to each individual boxes, a pair of rubber boots is used, that id permanently immersed into Sanivir®, along with double gloves, disposable cap, mask and blouse. All of the material is disposable and for a single use. If indicated, facial protection is used. Every patient has their own material for hospitalization and bed cleaning tasks.

The adult cattle are explored in the appropriate contention stock and hospitalized in the adjacent paddock, with specific material for physical exploration and paddock cleaning. Depending on the pathology that the animal is suffering from, the following measures are adopted: use of gloves, blouse, disposable cap, high shoe covers and footbath with Sanivir® 1 % in the entrance of the paddock.

The isolation unit for small animals is located in a building isolated from the other premises of the hospital. To access this isolation unit, a footbath carpet (Virkon® 1%.) situated on the exterior must be cross. This room possesses a video surveillance system, two water intakes, one device for the patient's washing and a central sink to facilitate cleaning and disinfection. The room is subdivided into two areas. The first one contains two cages (1,0 x 0,7 m) for cat hospitalization; the other area contains three cages measuring 1,20 x 1,20 meters for dog hospitalization. On the front part of each cage, all material necessary and individual protection gear (blouse, high shoe covers, gloves, disposable cap and mask) is provided.

Each Teaching Farm owns its individual biosecurity protocol according to its characteristics:

IEGRA

The center has biosafety rules available at the entrance to the main building and at the entrance to the animal area. Students access the IEGRA facilities through the main entrance with the transport vehicle passing through a wheel disinfectant that must be parked at the entrance of the establishment. Later the shoes must be disinfected to access to the changing rooms where individual protection equipment is provided to visitors.

Biosafety measures are grouped into structural measures and farm management measures:

- Structural measures are the physical barriers implemented to control access to the facilities, primary fences that are checked once a month to avoid the entry of uncontrolled animals.

- Management measures are specific and routine actions over time that, with a scheduled frequency, aim to reduce the risk of entry and spread of pathogens and increase the general hygiene of the farm. The routine analyzes performed on donor animals are detailed in the Quality Manual for obtaining semen and embryos. Likewise, the practice of quarantining every animal that enters the Center introduces another element of fundamental biosecurity. Likewise, there are vehicle disinfection measures and visitor control regulations detailed in the Biosecurity manual.

KUNA IBERICA BIOSECURITY

Biosecurity measures are especially important, since any zoonosis can cause the closure of the facilities. Vehicles remain outside the facilities to avoid possible contagion between farms. Within the enclosure several disinfection points have been established with a footbath and hand sanitizing gel in order to minimize the risk between species. This protocol is strictly followed by all center staff and students in training.

1- Entrance to the facilities:

The footbaths placed at the entrance of the center and in the different venues where the practices are to be carried out are used. In addition, hands

must be washed and disinfected before entering the premises. Students must wear footwear and clothing for exclusive use during their stay at the center to avoid transferring between different farms. As in our case the areas are separated and well defined, footbaths and disinfection points have been placed in each of them in order to minimize the risk of disease transfer between species. In the case of poultry, they have been covered with mesh to prevent the entry of birds from outside, thus minimizing the risk of contagion.

2- Departure from the facilities:

Sharp materials used by students are deposited in special containers for this type of material. Exclusive use clothing will be discarded in a plastic bag and removed to the waste container.

Before leaving, they go through a foot bath and disinfection point again in order to prevent infectious agents from leaving the farm.

Families and users visiting the center on a regular basis only use the footbaths at the entrance and ticket office since they do not access the animal enclosures as students in training do.

In order to remember this protocol, posters have been placed, such as the one shown below, outside the enclosures with the basic information and instructions to follow.

The animals are controlled by periodic inspections by the Ministry of Agriculture and Livestock, keeping a livestock book for each of the species. Jointly, avian flu inspections are carried out every 6 months. If a specimen were to test positive for any of the zoonotic diseases during any of the routine inspections, it would be immediately isolated from the rest of the specimens, establishing a security zone to which only veterinary personnel can access and which is removal of other animals and people in order to minimize transmission. In the same way and parallel to this action, the pertinent tests are carried out on the rest of the horses to assess the scope of the situation.

The center has a system of exclusive freezers to store a corpse at the time of death. Subsequently, the corpse collection service of the Community of Madrid is notified or it is transferred for educational purposes to the Alfonso X "El Sabio" University.

Standard 4.7: The VEE must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.

Field veterinary medicine and Herd Health Management are taught mainly by ambulatory clinicians that are trained in teaching and assessing. These ambulatory clinics offer 5th year students the exposure and experience on cases and species that are not the primary cases seen at the VTH or teaching farms. Animals in these services are attended either individually or as herds and include equine, bovine, small ruminants and pigs.

Students are transported in the clinician's vehicle to the different farms and stables.

Standard 4.8: The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU Standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.

Students use their own vehicles for transportation to the extramural facilities, normally as a group. Live animals are transported by the clients to the VTH and teaching farms according to national regulations (transport guides). Cadavers and organs are transported by authorized companies for SANDACH transportation like Hadescan.

Standard 4.9: Operational policies and procedures (including e.g. biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors and a Biosafety manual must be available. The VEE must demonstrate a clear commitment for the delivery of biosafety and biosecurity, e.g. by a specific committee structure. The VEE must have a system of QA to monitor and assure clinical, laboratory and farm services, including a regular monitoring of the feedback from students, staff and client.

Operational policies and procedures (including e.g. biosecurity, good laboratory practice and good clinical practice) are taught and posted for students, staff and visitors at VTH, teaching farms and laboratories as well as on our online campus (Head or Studies Page).

Biosecurity refers to a set of practices aiming at preventing and controlling the introduction and propagation of infection diseases. It is therefore an essential function of every installation of the VTH UAX. Best practice about prevention and control of infections is not the only characteristics defining excellence in patient's treatment, but it is impossible to reach it without applying logical processes for infections control. The processes implemented in the UAX VTH are appropriate to face the main threats inferred by infectious-contagious diseases.

In 2019, the Biosecurity Committee was created, which led to the creation of the Biosecurity Manual, and in the meantime, the proposition of improvements in the hospital's infrastructures, to guarantee compliance with the biosecurity norms. All the decisions are overviewed by the Dean and the director of the VTH UAX.

The Committee has a capacity of counselling, concerning biosecurity in the context of the clinical and teaching activity, that is developed in the VTH. It provides information concerning the biosecurity protocols to adopt, the available infrastructures for living or dead animals, and defines the processes that allow the evaluation and compliance with the biosecurity program. Thereby, the Committee provides improvements in the biosecurity matters, in accordance with the latest scientifical updates published.

The objective of the biosecurity program is based on the following premises: to create an environment for the patients in which the nosocomial infections are limited, to protect the hospital's staff, students and customers against zoonotic pathogens, and to provide the students with an adequate educational experience concerning Biosecurity, demonstrating best practice for prevention and control of infectious-contagious diseases.

Therefore, during 2020, the infrastructure of the large animals' area was improved, with the extension of each isolation unit, the separation of the boxes, the installation of water intakes for every box, and the installation of additional sinks to facilitate cleaning and disinfection. During the course 2021-2022, the budget was raised for disinfectants consumption, cleaning and disinfection equipment, and maintenance of damaged infrastructure that could have acted like fomites. A project has been approved recently to improve the hospitalization area, and the operating rooms for small animals, with the objective of improving biosecurity.

The meetings of the Biosecurity Committee are held at least twice a year, and whenever needed (zoonotic diseases, multidrug-resistant organisms), to deal with current subjects and discuss the questions raised.

To assess the correct functioning of the biosecurity measures, the responsible persons for Biosecurity in every area have an instant message group in which participate: interns, residents, veterinary nurses and department managers. This way, any biosecurity failure is discussed immediately, sometimes with the support of graphic documentation. Internal audits are performed to assess compliance with a checklist of critical control points in the different areas of the VTH UAX. This includes samples for environmental culture. This task is performed by the biosecurity managers periodically. To keep the staff informed an annual training is performed in September, at the beginning of the academic year.

Education and training of the students and staff is fundamental for the biosecurity program to succeed. Therefore, students and staff have access to the biosecurity manual online on our campus website, under the section of the Dean page, and in the virtual classroom of every class concerning VTH, ambulatory clinics or teaching farms. Students and staff can also consult biosecurity protocols on the panels displayed in the laboratories, farms and in the hospital's premises.

Abstract of the biosecurity protocol

The principles described in the UAX Biosecurity Manual aim at preventing and controlling infection diseases. The protocols support the prevention of a transmission of diseases between patients, from the personnel to the patients, from the patient to the personnel, and between staff members.

The first part of the manual is common to all areas, and describes the main disinfectant products used, the clothing rules, and the hand hygiene measures.

Subsequently, in the sections referring to the equids, ruminants and small animals, are described how to operate the classification and hospitalization of the animals, the hospitalization areas and operating rooms, and the measures of biosecurity adopted in all of them, including cleaning protocols and disinfection that lead to break the transmission cycles of diseases. These paragraphs also include the traffic patterns, along with the circulation pathways for the people (staff, students and visitors).

In the paragraphs about the necropsy rooms, and clinical analysis labs, the norms concerning clothing and biosecurity are collected whenever biological waste is handled. They also describe the processes to be applied to eliminate the sanitary waste of type III and IV. This is managed by the external company Stericycle, following the autonomic norms of REAL DECRETO 83/1999, from the third June 1999.

Comments on Area 4

Overall, facilities and equipment at UAX are updated and adequate for the delivery of the Veterinary Curriculum. Classrooms and laboratories are being renewed and as well as equipment on a regular basis and student needs are actively evaluated and considered. The agreements with external farms and ambulatory services has assured training in these areas without having intramural facilities to deliver these learning opportunities.

Suggestions for improvement in Area 4

- The Clinical Skills Laboratory at the VTH could be completed with additional models. A plan is in place to develop a complete simulated Veterinary Hospital including mock consultation, surgery rooms and debriefing facilities, as well as additional laboratories for applied clinical research.
- A dedicated exotic animal hospitalization facility will soon be required due to the increase in this type of cases at the VTH.
- Additional lockers and changing rooms are to be considered in the future construction plans for the VTH and Kuna Iberica Teaching Farm.
- Equipment at the Food Technology Plant could be improved to encourage research in this area. The purchase of specific equipment such as a specific immune-essay system is being considered.

Area 5

Animal resources and teaching material of animal origin.

Area 5. Animal resources and teaching material of animal origin.

Standard 5.1: The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical and safe hands-on training (in the areas of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled. Evidence must be provided that these data are regularly recorded and that procedures are in place for correcting any deficiencies.

One of the main pillars of the 2021-24 strategic plan of the UAX VF is to provide students with up-to-date knowledge and high-quality practical skills assuring the acquisition of Day One Competences (DOC) in the best learning environment. For this purpose, the VF is maximizing facilities and resources that assure hands-on training of all the students for Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) by:

1. Closing agreements with collaborative institutions to increase the number of organs, samples, cadavers, individual animals and herds to be examined, treated or visited.

2. Organizing new practical teaching in extramural facilities for Food Safety and Quality under the new circumstances overcome after the pandemic, biosecurity and regulations.

3. Improving facilities and increasing the number and variety of healthy and diseased animals.

The VF ensures that each student receives the core clinical training before graduation by exposing and assuring hands-on-experience to patients at the VTH, teaching farms and ambulatory rotations during their 3rd (healthy animals and pre-clinical training), 4th and 5th year of the veterinary degree.

▶ Development of DOC in healthy animals:

The primary sources of healthy live animals for preclinical training are the equine and ovine herds located in the campus, as well as healthy small animals (at VTH premises), the two teaching farms (Kuna Iberica) in Navas del Rey and IEGRA (Spanish Institute of Genetics and Animal Reproduction) in Talavera for bovine, small ruminants, poultry, pigs and exotic animals, and finally, one fish farm for aquatic animals.

The strategic plan of the VF includes the increase in number and variety of healthy animals at the student's disposal. For this purpose, the VF has increased the number of poultry and pigs at the Kuna Iberica farm to respond to the increasing difficulty of hands-on training due to biosecurity restriction at big extramural intensive farms for this species. The VF also has in its plan for this farm the introduction of fish after conditioning the fish tanks and pond in the establishment. This farm is used for pre-clinical training in propaedeutics as well as animal production together with IEGRA farm and visits to extramural herds of all the main productive species in Spain.

▶ Development of DOC in diseased animals for clinical training:

The primary sources of diseased live animals for clinical training are the patients received at the VTH, IEGRA farm and ambulatory rotations. Clinical patients from private owners (small and exotic animals, horses, and ruminants) are examined and treated by the students under the supervision of trained academic staff.

The increasing number of animals attended intramurally at these premised assures the students to achieve a correct and consistent core clinical training according to the Day One Competencies (DOC) during the 4th and 5th years. The VF has taken actions to increase the numbers of clinical cases like exotic pets by signing an agreement with Verdecora (plant and pet shop) and has (1) included the veterinary team of AFRICAMA (Frisian Cow Association) in the ambulatory rotations, training the practitioner for teaching and evaluation and greatly increasing the bovine caseload and hands-on experience for the students in this field and has (2) implemented numerous agreements with food-producing animal farms as a strategic line to strengthen the clinical training in these species, from an individual and population medicine point of view. The VF has in its plans to include a nursing calf station with in order to increase the number of diseased bovines of this age that the students are exposed to as most of the ruminants attended at IEGRA or in the ambulatory rotations are adult cow or feedlot animals.

The VTH is the main establishment where the intramural clinical training to the 4th and 5th year students takes place that allows and underpins the acquisition of knowledge in the etiology, pathogenesis, clinical signs, diagnosis and treatment of the common disorders in companion and large animals. The VTH consists of two different departments according to the animal species attended: the companion animal (canine, feline and exotic animals) and the large animal (equine, cattle, small ruminants, and pigs) areas. Both services are provided with morning and afternoon clinical appointments all year round, both for general (Medicine and Surgery) and specialist consultations (Dermatology, Ophthalmology, Odontology, Neurology, Oncology, Diagnostic Imaging, Physiotherapy and Rehabilitation, Traumatology and Soft Tissue Surgery, Minimally Invasive Surgery, Orthopedic, Reproduction, Ethology, and Exotic Animals). There are also an Emergency and Hospitalization service 24/7 with independent canine, feline, exotic animals, equine and cattle and small ruminant facilities. An isolation area for companion animal, equine and large animals are also available in order to assure the biosecurity policy implemented at the VTH.

Cases attended at the VTH are mainly individual small animal and equine patients, with an increasing number of exotic pets and production animal cases. General consultations and surgical procedures amount to 25,8 % of the cases, followed by specialties, diagnostic imaging, hospitalization and emergencies. The VTH receives referred and first opinion patients. Small animal cases are mostly schedule visits, but walk-ins and emergency cases are increasing. The number of emergencies accepted out of hours and weekends are relatively high in the last three years.

The Large Animal area is focused on equine patients and in general terms, the caseload is substantial, both for appointed and emergencies cases. Specifically, the VTH has implemented some collaboration agreements with different insurance companies that have raised the admission of a high volume of equine emergencies during the whole year. This circumstance grants an intense and narrow contact and participation of students to clinical cases that need critical care (acute abdominal syndrome, neonatology emergencies, fractures, and septic arthritis, overall) during the out of hours and weekends. For this reason, the balance between acute and chronic cases varies according to the animal species: patients suffering from an acute illness and being attended at the VTH are higher in horses (20,9%) than in companion animals (9,3%).

Due to the non-rural area where the VF is established, the food animal caseload attended at the VTH is low. To solve this situation and in order to ensure the sufficient practical training according to the DOC, the Teaching Farms (IEGRA and Kuna Iberica) act as intramurally extension establishments of the VTH, where access to preclinical and clinical teaching (mainly large animal reproduction and exotic animal clinic training) is provided. Also, wildlife management and herd health care take place in Kuna Iberica were students attend to basic nursing care of the resident animals, but if animals require hospitalization they are normally referred to the VTH.

IEGRA farm and ambulatory rotations mostly attend large animals (equine, bovine, small ruminant and pigs) with morning and afternoon clinical appointments all year round. IEGRA mostly offers the students with the Reproduction and Obstetrics specialty with mainly referred cases as well as basic nursing car for production animals, and the ambulatory service offers the students with medical, surgical and reproductive cases (mainly first opinion) with clinical training, from an individual and population medicine point of view.

Overall,

- The average number of first-opinion consultations at the VTH is highly variable among species, ranging from 86% approx. for companion animals (dogs and cats) and exotic animals, 55% approx. for equine patients and reaches a 100% for food animal patients (Table 5.1.5). However, referral cases are predominantly high among clinical specialties, and for advanced surgical procedures and diagnostic imagen, such as CT and MRI examinations. The VTH acts as a reference center for external veterinary clinics in companion animals, but predominantly in equine clinic, where caseload arises from all regions in Spain. This situation prompts the higher rate of horses hospitalized (at least for 24 h) than companion animals.

- Around 62% and 44% of our clinical activities on exotic animal and small ruminant, and poultry and rabbits, respectively, are focused on individual medicine, while almost 99% of cattle and pig medicine has a population approach. The whole group of companion animals and horses are individually managed.

Anatomical collections, cadavers and organs are used for preclinical anatomical and preclinical and clinical pathology training. In order to achieve the sufficient animal material, cadaver donors from the VTH (canine and feline species) and from our teaching farm Kuna Iberica and IEGRA (exotic animals, game animals, small ruminants, hens) are used, as well as animal models (pigs) that are obtained from dedicated companies and animals donated by GREFA (mostly raptor birds, vouchers and other local and exotic fauna. The agreement signed by the VF with GREFA (Group for Rehabilitation of Local Fauna) has substantially increased the number of exotic animals available for necropsy. Although cattle and pig necropsies take place during ambulatory clinics, not enough necropsies are performed intramurally. To correct this deficiency the VF is providing the VTH and Pathology department with diseased (culled) cattle from a feedlot.

Also, dogs and cats have been donated from animal shelters where "zero sacrifice" was not implemented (outside Madrid region). All this animal material is supplemented with the acquisition of isolated organs from slaughterhouses of different animal species. If not immediately used, anatomic pieces and cadavers are stored refrigerated or frozen to their preservation. Cadavers and organs are transported to the campus and then collected after their academic use by an authorized company for its transport (SANDACH) and waste incineration.

Practical training in Animal Production is based on hands-on training at both teaching farms (together with the campus sheep and horse herds) where students form the 2nd year on learn basic production principles like welfare, nutrition, herd management, biosecurity and biosafety. This training is completed with visits to farms and production units under the supervision of our academic staff and a herd health management computer program with which our students can practice different scenarios. The number of available farms near the UAX Campus has been decreasing throughout the years due to closure of many establishments or increased biosecurity measures, so the VF has been signing agreements with new farms and different production systems (outdoor /extensive) to provide the students with enough animals. Also, the number and variety of farm animals at Kuna Iberica have bee increased to offer students basic training at a nearby facility.

Practical teaching material for FSQ and VPH is obtained mainly from MercaMadrid Central Market and our University cafeteria service provider (milk, fruits, eggs, meat, poultry and fish). On-site evaluations and inspections take place in different establishments under our academic staff supervision like slaughter-houses (Grupo Los Norteños, Incarlopsa) or meet processing plants (MRM), fruit and fish distribution plants in the MercaMadrid Market (Plátanos López, Pesquera Albatros), restuarants (Couzapin) and Veterinary Health premises for the Spanish Defense Ministry (CEMILVETDEF). The VF has increased the number of hours of intramural practical training in this area in the Food Technology Plant and campus labs to offer specific training that may have been hindered by the increased sanitary measures after the pandemic and overt reticence of these extramural establishments to receive students in practical training. It has also broadened the collaboration agreements and is working on increasing the area´s academic staff o ensure all DOC are covered and trained for.

Animal welfare assurance in educational and research activities.

The VTH has a herd of horses and sheep that are used for teaching purposes for non-invasive or minimally handling procedures. All horses are rigorously examined on a daily basis or at the beginning of each practical session to ensure their state of welfare, and are housed and fed according to the requirements of each specie. The sheep flock is turned out, and is subjected to sanitary control and individually identification once a year by the competent authorities. General examinations during pregnancy, birth of lambs and routine deworming are generally performed on these animals.

All research projects that require the use of animals are approved by the Ethical Commission of Animal Use of the University Alfonso X el Sabio (available from https://www.uax.com/innovacion-e-investigacion) in accordance with the ethical principles of protection of Animals used for Scientific Purposes of Spanish legislation (RD 53/2013).

According to the triple Rs principle of animal research (replacement, reduction and refinement) and in order to improve the welfare and reduce the number of animals used for teaching, different models for pre/clinical practical training have been acquired during the last years:

- Equine palpation/colic simulator integrated with equine neck venipuncture that allows training in rectal palpation for the examination of the digestive system in horses (4th and 5th year clinical rotation). This model also includes a system to simulate jugular venipuncture that can be used in the preclinical practical training (Propaedeutics, 3th year semester 2).

- Small animals: six canine ovariohysterectomy models, one canine and one feline intubation trainer model, one model for canine venipuncture, suture training pads, one canine female urethral catheterization. All this material is used during the 4th and 5th year student clinical rotation at the VTH in different subjects like Medicine, General Surgery and Anesthesia.

- The VF has planned on increasing the number and variety of models during the 2022-23 academic year and is working towards organizing an independent Simulated Veterinary Hospital for both clinical and soft skills development for students, incorporating all the new available equipment and dedicated staff.

How the cadavers and material of animal origin for training in anatomy and pathology are obtained, stored and destroyed:

As previously stated, fresh, frozen and fixed organs and animal models are used for preclinical training in Anatomy, that are obtained from slaughterhouses and incineration companies that provide anatomical pieces and cadavers. This material is refrigerated or frozen upon its educational use and then is collected by an authorized company for its waste incineration.

All biological sample submitted to the Clinical Laboratory and Pathology service for its analysis (blood, urine and other biological fluids samples, as well as biopsies and cytologies) originates from patients treated at the VTH.

Cadavers and animal material originate from patients donated to the VTH for educational purposes or are obtained from those cadavers that require a gross post-mortem examination to achieve a final diagnosis. In order to increase the number of exotic animal cadavers exposed to students, an agreement with GREFA (a national organization dedicated to the Rehabilitation of regional Wildlife) has been reached. This collaboration allows the referral of different species of mammals, birds and reptiles to the VTH. The animal material is transported to the Veterinary Faculty by a legally authorized company. During the animal necropsy, students record observations and collect sample tissues for their processing. As previously mentioned, cadavers and related waste material are collected by two other authorized companies for its transport (SANDACH) and incineration (Hadescan and Secanim).

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle				
Specimens				
Brain	10	9	9	9,3
Heart	10	13	13	12
Lung, trachea and larynx	5	2	2	3
Liver	2	14	14	10
Spleen	5	7	7	6,3
Tongue	5	8	8	7
Stomach	1	1	1	1
Kidney	10	11	11	10,7
Testicles	10	31	31	24
Penis	10	25	25	21,7
Female Genitals	10	8	8	8,7
Bones				
C1	8	8	8	8
C2	7	7	7	7
C3-C5	12	12	12	12
C6	3	3	3	3
C7	4	4	4	4
Thoracic vertebrae	21	21	21	21
Lumbar vertebrae	16	16	16	16
Sacrum	5	5	5	5
Sternum	3	3	3	3
Pelvis	14	14	14	14
Femur	12	12	12	12
Tibia and fibula	15	15	15	15
Tarsus	6	6	6	6
Carpus	5	5	5	5
MT3	5	5	5	5
MC3	5	5	5	5
Scapula	12	12	12	12
Humerus	12	12	12	12
Radius and ulna	10	10	10	10
Phalanx	10	10	10	10
Skull	8	8	8	8
Mandibules	10	10	10	10

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Small ruminants				
Specimens				
Brain	50	64	64	59,3
Heart	50	28	28	35,3
Lung, trachea and larynx	50	20	20	30
Liver	50	33	33	38,7
Spleen	50	15	15	26,7
Tongue	50	32	32	38
Stomach	50	5	5	20
Intestines	50			16,7
Kidney	50	8	8	22
Female Genitals	21	21	21	21
Bones				
Complete skeleton	5	5	5	5
C1	7	7	7	7
C2	6	6	6	6
C3-C5	15	15	15	15
C6	4	4	4	4
C7	5	5	5	5
Cervical skeleton	2	2	2	2
Thoracic vertebrae	106	106	106	106
Thoracic skeleton	2	2	2	2
Lumbar vertebrae	38	38	38	38
Lumbosacral skeleton	2	2	2	2
Sacrum	2	2	2	2
Caudal vertebrae	42	42	42	42
Caudal skeleton	2	2	2	2
Sternum	4	4	4	4
Pelvis	9	9	9	9
Femur	20	20	20	20
Tibia and fibula	23	23	23	23
Tarsus	11	11	11	11
Carpus	10	10	10	10
MT3	13	13	13	13
MC3	15	15	15	15
Hooves	6	6	6	6
Scapula	15	15	15	15
Humerus	15	15	15	15
Radius and ulna	15	15	15	15
Phalanx	21	21	21	21
Distal skeleton	4	4	4	4
Skull	10	10	10	10
Mandibule	3			

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Pigs				
Cadavers	20	20	20	20
Specimens				
Brain	50	64	64	59,3
Heart	50	36	36	40,7
Lung, trachea and larynx	50	8	8	22
Liver	50	21	21	30,7
Spleen	50	17	17	28
Tongue	50	22	22	31,3
Stomach	5	13	13	10,3
Intestines	5	6	6	5,7
Kidney	50	8	8	22
Testicles	50	27	27	34,7
Penis	50	19	19	29,3
Female Genitals	50	31	31	37,3
Bones				
Complete skeleton	2	2	2	2
Scapula	3	3	3	3
Skull	7	7	7	7
Mandibules	5	5	5	5

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Companion animals				
Cadavers	70	30	0	33,3
Specimens				
Brain	1	1	1	1
Heart	36	36	36	36
Lung, trachea and larynx	33	33	33	33
Liver	49	49	49	49
Spleen	34	34	34	34
Tongue	8	8	8	8
Stomach	13	13	13	13
Intestines	2	2	2	2
Kidney	63	63	63	63
Testicles	60	60	60	60
Penis	12	12	12	12
Female Genitals	33	33	33	33
Bones				
C1	5	5	5	5
Complete skeleton	3	3	3	3
C2	5	5	5	5
C3-C5	19	19	19	19
C6	5	5	5	5
C7	7	7	7	7
Cervical skeleton	1	1	1	1
Thoracic vertebrae	116	116	116	116
Thoracic skeleton	1	1	1	1
Lumbar vertebrae	77	77	77	77
Lumbar skeleton	1	1	1	1
Sacrum	9	9	9	9
Caudal vertebrae	74	74	74	74
Caudal skeleton	1	1	1	1
Sternum	3	3	3	3
Pelvis	10	10	10	10
Femur	34	34	34	34
Tibia and fibula	33	33	33	33
Tarsus	10	10	10	10
Hindlimb skeleton	2	2	2	2
Carpus	10	10	10	10
Forelimb skeleton	2	2	2	2
MT3	10	10	10	10
MC3	10	10	10	10
Scapula	31	31	31	31
Humerus	33	33	33	33
Radius and ulna	31	31	31	31
Phalanx	26	26	26	26
Skull	17	17	17	17
Mandibule	18	18	18	18

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Equine				
Cadavers	1			0,33
Specimens				
Heart	9	9	9	9
Lung, trachea and larynx	3	3	3	3
Liver	1	1	1	1
Spleen	7	7	7	7
Tongue	4	4	4	4
Stomach	2	2	2	2
Intestines	1	1	1	1
Kidney	7	7	7	7
Testicles	11	11	11	11
Penis	1	1	1	1
Female Genitals	5	5	5	5
Bones				
Complete foal body	1	1	1	1
Complete equine skeleton	1	1	1	1
C1	2	2	2	2
C2	3	3	3	3
C3-C5	13	13	13	13
C7	2	2	2	2
Thoracic vertebrae	67	67	67	67
Lumbar vertebrae	17	17	17	17
Sacrum	3	3	3	3
Pelvis	16	16	16	16
Femur	12	12	12	12
Tibia and fibula	14	14	14	14
Tarsus	9	9	9	9
Carpus	6	6	6	6
MT3	13	13	13	13
MC3	19	19	19	19
Hooves	18	18	18	18
Scapula	23	23	23	23
Humerus	14	14	14	14
Radius and ulna	20	20	20	20
Phalanx	19	19	19	19
Skull	11	11	11	11
Mandibules	12	12	12	12

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Poultry & rabbits				
Cadavers	50	55	60	55
Aquatic animals				
Cadavers	257 fishes 250 mussels	259 fishes 250 mussels	262 fishes 250 mussels	259,3 fishes 250 mussels
Exotic pets				
Cadavers	19	20	10	16
Complete turtle skeleton	1	1	1	1
Complete iguana skeleton	1	1	1	1
Complete varanus skeleton	1	1	1	1
Complete snail skeleton	1	1	1	1
Others				
Complete oryx skeleton	2	2	2	2
Complete bear skeleton	1	1	1	1
Complete deer skeleton	1	1	1	1
Complete zebra skeleton	1	1	1	1
Complete dolphin skeleton	1	1	1	1
Complete waterbuck (Kobus ellipsiprymnus) skeleton	1	1	1	1
Complete liger skeleton	1	1	1	1
Complete lion skeleton	1	1	1	1
Complete monkey (Saimiri sciureus) skeleton	1	1	1	1
Cervical skeleton	1	1	1	1
Thoracic vertebrae	116	116	116	116
Thoracic skeleton	1	1	1	1
Lumbar vertebrae	77	77	77	77
Lumbar skeleton	1	1	1	1
Sacrum	9	9	9	9
Caudal vertebrae	74	74	74	74
Caudal skeleton	1	1	1	1
Sternum	3	3	3	3
Pelvis	10	10	10	10
Femur	34	34	34	34
Tibia and fibula	33	33	33	33
Tarsus	10	10	10	10
Hindlimb skeleton	2	2	2	2
Carpus	10	10	10	10
Forelimb skeleton	2	2	2	2
MT3	10	10	10	10
MC3	10	10	10	10
Scapula	31	31	31	31
Humerus	33	33	33	33
Radius and ulna	31	31	31	31
Phalanx	26	26	26	26
Skull	17	17	17	17
Mandibule	18	18	18	18
Skull	17	17	17	17
Mandibule	18	18	18	18

Table 5.1.2. Healthy live animals used for pre-clinical training (animal handling, physiology, animal production, propaedeutics, ...)				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	5812	866	840	2506
Small ruminants	644	101	56	267
Pigs	8008	12	7	2675
Companion animals	25	21	19	21,7
Equine	42	39	38	39,7
Poultry & rabbits	33284	1400	30058	21580,7
Aquatic animals	10.000	0	0	3333,3
Exotic pets	143	154	92	129,7
Others (specify)				

Table 5.1.3. Number of patients** seen intra-murally (in the VTH)				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	94	95	115	101,3
Small ruminants	181	156	120	152,3
Pigs	4	7	7	6
Companion animals	12285	11310	9164	10919,7
Equine	622	705	394	573,7
Poultry & rabbits	110	67	59	78,7
Aquatic animals	0	0	0	
Exotic pets	365	132	108	201,6
Others (specify)		0	0	

Table 5.1.4. Number of patients** seen extra-murally (in the ambulatory clinics)				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	6322	3094	1037	4151
Small ruminants	284	64	26	124,6
Pigs	6260	2182	0	2480,6
Companion animals	0	0	0	0
Equine	1625	1808	538	1326,6
Poultry & rabbits	0	0	0	0
Aquatic animals	0	0	0	0
Exotic pets	0	0	0	0
Others (specify)	0	0	0	0

Table 5.1.5. Percentage (%) of first opinion patients used for clinical training (both in VTH and ambulatory clinics, i.e. tables 5.1.3 & 5.1.4)				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	100	100	100	100
Small ruminants	100	100	100	100
Pigs	0	0	0	0
Companion animals	85,1	86	87,8	86,3
Equine	54,8	57,7	53,9	55,5
Poultry & rabbits	0	0	0	0
Aquatic animals	0	0	0	0
Exotic pets	61,8	100	98	86,6
Others (specify)				

Table 5.1.6. Cadavers used in necropsy				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	16	4	2	7,333333333
Small ruminants	8	4	2	4,666666667
Pigs	42	20	8	23,33333333
Companion animals	367	344	296	335,7
Equine	51	57	41	49,7
Poultry & rabbits	80	80	80	80
Aquatic animals				
Exotic pets	169	33	13	71,7
Others (specify)				

Table 5.1.7. Number of visits in herds/flocks/units for training in Animal Production and Herd Health Management				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Cattle	48	40	40	43
Small Ruminants	12	8	0	7
Pigs	62	24	24	37
Poultry	4	4	2	3
Rabbits	2	0	0	1
Aquatic Animals	6	0	0	2
Others				

Table 5.1.8. Number of visits in slaughterhouses and related premises for training				
Species	***2021-22***	***2020-21***	***2019-20***	***Mean***
Ruminant Slaughterhouses	16	8	8	10,6
Pig Slaughterhouses	16	0	0	5,33
Poultry slaughterhouses	0	0	4	1,33
Related premises**	32	8	8	16

The coordinators of the different implicated subjects together with the Dean´s Office decide the necessary animals and material of animal origin for pre-clinical and clinical training and clinical services, considering not only the number of students and the needs for them to achieve DOCs, but also the information obtained through the QA system. The VF provides the needed materials or animals to the laboratories, Food Technology Plant and teaching farms based on what is approved by the Governing Council and Executive Committee. The VF request the VTH of the needs for clinical services.

Assessment and revision of improvements in these areas are done by the Dean´s Office and through the QA system.

Standard 5.2: In addition to the training provided in the VEE, experience can include practical training at external sites, provided this training is organized under direct academic supervision and following the same standards as those applied in the VEE.

The students practical training is complemented at different external sites that the VF has signed agreements with as mentioned in Standard 5.1. The training is provided by VF academic staff following the same standards as those applied in the VF main campus. These staff members are trained to teach and evaluate, and are included in the QA system. The main external sites used for practical training are the two teaching farms, Food Safety and Quality establishments mentioned in Standard 5.1., livestock farms visited for Animal Production and Herd Health Management training, and farms and stables visited by ambulatory clinicians. Both teaching farms are run by VF academic staff and receive students on a daily basis from all the years of the curriculum for different practical training purposes. Students participate actively in different aspects including:

- Ethology and welfare evaluation of farm animals as well as resident exotic and local species.
- Evaluation of production aspects such as egg quality, animal weight and conformation, nutrition and feeding.
- Physical evaluation of animals as well as reproductive exams including semen, oocyte and embryo evaluation.
- Diagnosis and treatment of animals when hospitalization at the VTH is not required, including castrations, medical and reproductive treatments.
- Preventative medicine and herd health management of resident animals.

Animal production and Herd Health Management training is complemented visiting additional external sites where students participate in milking, feeding, evaluation of production and welfare parameters, and in preventative medicine and herd health management.

The number of animals visited in the ambulatory clinics varies every academic year, ranging from a mean of 4000 individuals (dairy and meat cattle), 2500 pigs and small ruminants, and 1100 horses. During these visitations, students participate in preventive medicine and sanitary programs in herds, reproduction management, and diagnosis and treatment of field clinical cases, all under direct supervision of VF academic staff.

Standard 5.3: The VTH must provide nursing care skills and instruction in nursing procedures. Under all situations students must be active participants in the clinical workup of patients, including problem-oriented diagnostic approach together with diagnostic decision-making.

Nursing care skills are achieved during the VTH rotations during the 4th and 5th academic years, through the different clinical services that receive students. Each clinical group is divided in small subgroups that allow the active involvement and hands-on training of the students in the clinical exploration and care of hospitalized patients (medication, feeding, monitoring), as well as participation of clinical procedures (sample collections, diagnostic imaging, basic surgical procedures). Every subgroup is permanently overseen by a veterinary clinician (VT academic staff) that supervises that practical training is properly achieved and oversees animal welfare. Training in problem-oriented diagnostic approach together with diagnostic decision-making is achieved by participation of students in daily rounds with senior and junior VTH staff (VT academic staff), and communication with students and evaluation of their deductive process when managing cases.

Overall, group sizes are reduced throughout all clinical training with a maximum of 3-4 students per service or senior clinician/ VF academic staff:

- 4th year students participate actively in the following clinical rotations: General consultation and Internal Medicine, Surgery, Critical Care (Hospitalization) and Anesthesia Services, both in Small and Large animal Departments. The clinical activities are performed by a number of 3-4 students per group, except for the Hospitalization service, where groups are slightly larger due to the volume of patients and division of ICU facilities into 3 different areas (6-8 students per initial group that gets divided into 2-3 groups).
- During the 5th year, rotations at the VTH cover the Emergency service (Small and Large Animals) and clinical specialties (Neurology, Oncology, Dermatology, Ophthalmology, Rehabilitation, Exotic animals, advanced Diagnostic Imaging and advanced equine medicine/surgery). Practical training and skills in Obstetric and Reproduction are acquired both at the VTH consultation (small animal) and at the teaching farm located in IEGRA (for cattle, equine and small ruminants). During this senior year, and in order to complete practical training in Large Animal species, all students participate in the Ambulatory Clinic Rotations.

The hands-on clinical training activity is achieved by assuring that students carry out the procedures listed as follows:

- General consultation (internal medicine and surgery): collect accurate and relevant clinical histories, handle and restrain the patient if needed, perform a complete physical examination, assess the patient nutritional status, summarize an ancillary tests list demonstrating ability in clinical decision-making, collect biological samples (blood, urine, skin scraping, among others), discuss differential diagnosis, plan a therapeutic approach, communicate effectively with owners, use the clinical software for database acquisition (QVET®) and prepare clinical reports.
- Emergency and Hospitalization: contribute to emergency care and first aid, administer drugs (IV, IM, PO, SC) according to an appropriate treatment plan, including responsible use of antimicrobials and deworming, carry out special procedures needed (IV and urethral catheterization, CRI calculation, ECG, blood pressure measurement, among others), fluid therapy calculation, nursering (bandage changes, walk, feeding, cleaning wounds, postop care), euthanasia protocolization when

appropriate, respecting the patient and its owner's feelings. This service underpins the importance of interpersonal interaction and communication, and team working.

- Clinical pathology: Collect, preserve and transport biological samples, select appropriate diagnostic laboratory tests, interpret basic blood analysis and blood smears.

- Surgery rooms: prepare the surgical field and special material, assist in aseptic surgical procedures (soft tissues, traumatology and minimal invasive), endoscopy, apply bandages.

- Anesthesia: collect the clinical history, consider the preanesthetic state and individually assess and discuss the anesthetic protocol for each patient, safely administer sedation and general and regional anesthetic drugs, monitor the anesthetic maintenance, care of the patient in the immediately postanesthetic phase. Asses and manage pain before, during and after the anesthetic procedure.

- Diagnostic imaging: contribute to the patient positioning for radiographic exposure and CT scanning, select the radiographic projections, adjust the radiographic parameters, prepare the patient for ultrasound scanning, initially interpret the most relevant findings in imaging, use the PACS for evaluation of images. All these actions allow the understanding of the contribution that imaging and other diagnostic techniques can make in achieving a diagnosis. The appropriate use of basic and advanced imaging equipments is in accordance with good health and safety practice and current regulations.

- Reproduction of large animals: perform rectal palpation in cattle and mares and determine the oestral cycle, gestation diagnosis, assist in reproduction procedures (biopsies, uterine lavage).

- Necropsies: comprehensive study of clinical cases and complete systematic necropsies on them. Evaluate macroscopically the main findings that match with symptomatology.

- Biosecurity: active participation in the surgical environment (use of clean clothes and specific footwear for operating rooms, learning the cleaning and disinfection protocols of the surgical area), active participation in the isolation unit (cleaning and disinfection of material, stethoscopes and thermometers of each patient), preparation of dilutions for foot baths and routine disinfection of equine facilities (corridors, induction and recovery boxes), preparation of the reception and transfer of patients in the different levels of biosecurity considered. The student involvement allows to apply principles of biosecurity correctly.

To ensure the correct learning and understanding of the clinical activities in which each student is involved, two daily clinical round sessions are held (early in the morning and after-lunch), both in small and large animal areas, at which the involved veterinarians discuss each clinical case, its treatment and evolution, and the participation of the students is actively requested. During the 5th year rotation, clinical cases are assigned to each student on which they must work on differential diagnoses, assess therapeutic options and evaluate the evolution of each patient, in case they remain hospitalized. At the end of the week, the student discusses their clinical case with the veterinarians and they are evaluated according to the work and study developed in each case.

Standard 5.4: Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programs of the VEE.

The clinical database arisen from the VTH is managed by a specific software created for this purpose, QVET®, which allows accessibility from any computer inside the hospital facilities and / or via online. This program is available to clinicians and VT academic staff teaching at VTH, as well as students, through different profiles that ensure the confidentiality of the owner and animal data that it contains. This software records different source of information regarding the clinical activities at the VTH, such as the agenda for each clinical service, appointments and clinical histories. Students approach to this program in a practical and routinely base as they are present when used by the veterinarians, and they also reach access to clinical information, such as the reason for consultation, the ancillary tests performed and their results, the diagnosis issued, the treatment chosen and follow-up during hospitalization when need it. The data accumulated in this software over the last 10 years are also available for teaching and research purposes.

On the other hand, all images acquired in the diagnostic imaging service, which include direct and indirect radiology, ultrasound, computed tomography and magnetic resonance imaging studies are automatically and directly sent to and archived in a picture archiving and communication system (PACS - Synapse®). This system electronically stores images and reports, allows chronological view of a patient's imaging history, and provide remote access to all data to clinicians and students.

Comments on Area 5

In compliance with the curricular requirements and the Day One Competences associated to clinical training and necropsies of exotic animals, agreements have been established with several collaborating entities (GREFA, SAFARI PARK) that have enhanced the clinical activities on these species.

Given the productive circumstances of porcine livestock in center of Spain, and the idiosyncrasy of this animal species in our country, the intramural clinical activity in our Hospital is reduced in general terms. Therefore, this area of animal husbandry is

enhanced with 24 external visits to 9 breeding and growing pig farms in the surroundings, in such a way that an effective population of almost 12,000 animals are subjected to clinical inspection, different surgery procedures, necropsies and productive management during the 5th year rotation.

For the 22-23 academic year we aim to acquire 4 canine mid-line suture pads, two canine cystocentesis simulators, a canine head vascular access simulator, one canine heart model, one dog skeleton, one canine head model.

Suggestions for improvement in Area 5

A project to install a calf nursery farm in the VTH is underway for the 22-23 academic course. This action will allow the direct access of students to the management and handling of these animals at their very early age, from a productive and individual medicine perspective.

The acquisition of chronically ill patients (cattle, small ruminants and pigs) that are to be culled or euthanized due to poor prognosis for inspection and antemortem clinical management at the VTH and subsequent use in necropsies is planned for the 22-23 academic year. This action will provide the VTH with patients that are not often admitted to our establishment due to economic restraints and the intrinsic circumstances of the management of a livestock farm.


DAPI
MICROSCOPíA DE FLUO
420 nm
460 nm
500 nm
GFP
FITC
Cy3
Alexa 5
eyepiece
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etween 450 and 490 nm
primary antibody:
rabbit antibody
directed against
antigen A
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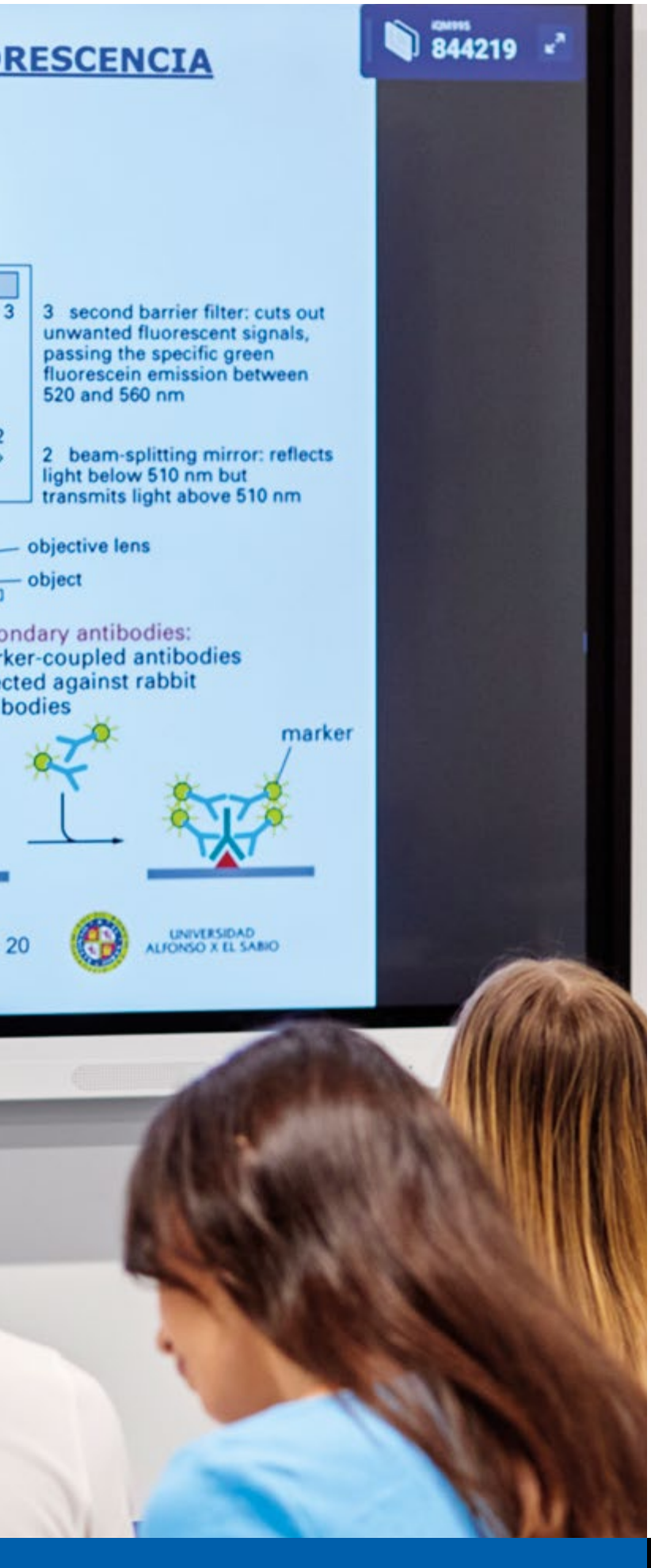

Area 6

Learning resource.

Area 6. Learning resources.

Standard 6.1: State-of-the-art learning resources must be adequate and available to support veterinary education, research, services and continuing education. When the study program is provided in several tracks/languages, the learning resources must be available in all used languages. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.

The VF strategy towards learning resources is based on assuring these are renewed, enough and available for all students, researchers and teachers. For this purpose, subject coordinators are asked annually to review pertinent resources and ask for new or complementary resources if needed through the Library SPL (System for Book Petition) or Technology Department for new software.

Learning resources can be accessed physically in the library and online through the UAX Campus under the heading https://biblioteca.uax.es/. Courses and guides for the use of this resources are also offered

online through https://biblioteca.uax.es/servicios/biblioguias.html as well as through the UAX Faculty Lab and UAX Academy for teachers and as part of the curricular activities in subjects throughout the degree.

The learning resources are proposed by the Dean´s office within the strategic plan for the VF and are finally decided on by the Governing Council and Executive Committee. They are communicated to staff, students and stakeholders through our website and are implemented, assessed and revised through our QA system.

Standard 6.2: Staff and students must have full access on site to an academic library administered by a qualified librarian, an Information Technology (IT) unit managed by an IT expert, an e-learning platform, and all the relevant human and physical resources necessary for the development of instructional materials by the staff and their use by the students.

The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the VEE's core facilities via wireless connection (Wi-Fi) and from outside the VEE through a hosted secured connection, e.g. Virtual Private Network (VPN).

Main Library for the VF (main UAX Library):

- The main library at UAX includes 7 FTEs: 5 are qualified librarians and 2 assistants.
- They are open Monday through Friday from 08:30 to 22:00, and from 09:00 to 20:00 on weekends throughout the academic year.
- An annual budget of 600.000 Euros is assigned to the main library, and not specifically for veterinary materials. It is located in main campus and offers 1800 m^2, with 476 individual seats for reading and individual work in the quiet main room, 96 seats for work in a common room and 36 seats for teamwork.
- Software available for bibliographical search:
  - Sapiens by Primo (Ex- libris).
  - Vetmed.
  - Documentamet.
  - Wos.
  - Scopus.
  - Proquest One Academic.
  - Imaios.
  - Plataformas de Libros Elibro.

There are small subsidiary libraries at the different services of the VTH, teaching farms and laboratories with relevant learning resouces.

The e-learning platform used by the VF is LMS Moodle. It is supported by virtual server with Apache-PHP (16 CPUs, 24 Gb RAM) and another with MySQL (16 CPUs, 36 Gb RAM), all on-premises. There are 2 dedicated IT staff for management of these servers, 3 dedicated to administration, management and development of LMS, and other 3 persons dedicated to user assistance.

The university has various learning resources based on Web tools. For this, the student is provided with Wi-Fi connection in all its facilities, ensuring access to the Internet and access to all these tools. For teaching staff or workers, in addition to a secure network throughout the campus, the infrastructure department makes available a VPN (Virtual Private Network) connection, to provide them with a secure and remote connection.

Standard 6.3: The VEE must provide students with unimpeded access to learning resources, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the program and have mechanisms in place to evaluate the teaching value of changes in learning resources.

- The number of veterinary books and periodicals: 1498.
- The number of veterinary e-books and e-periodicals: 4648.
- The number of other (e)books and (e) periodicals: 65.421.
- The available learning resources to students, including electronic information and e-learning courses:

Guides and courses offered by the library to students include:

- Use of bibliographic search programs.
- Initiation in the use of data bases.
- How to search and compare journals.

The students are also offered electronic information and e-learning courses through our UAX Skill-School, where they can access different e-courses in soft-skills and through different subjects where access is provided to free learning electronic materials.

Clinical skill labs are run by VTH clinicians and include models for:

- Equine palpation/colic simulator integrated with equine neck venipuncture that allows training in rectal palpation for the examination of the digestive system in horses (4th and 5th year clinical rotation). This model also includes a system to simulate jugular venipuncture that can be used in the preclinical practical training (Propaedeutics, 3th year semester 2).
- Small animals: six canine ovariohysterectomy models, one canine and one feline intubation trainer model, one model for canine venipuncture, suture training pads, one canine female urethral catheterization. All this material is used during the 4th and 5th year student clinical rotation at the VTH in different subjects like Medicine, General Surgery and Anesthesia.

Comments on Area 6

UAX VF learning resources are renewed, enough and available for all students, researchers and teachers.

Suggestions for improvement in Area 6

- Access to additional learning software such as 3D programs for anatomy teaching is being considered as the number of carcasses is being progressively reduced.
- The Clinical Skills Laboratory at the VTH could be completed with additional models. A plan is in place to develop a complete simulated Veterinary Hospital.
- Virtual reality glasses are being considered as part of a project for training in slaughterhouses and facilities that are limiting the entrance of students.


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Area 7

Student admission, progression and welfare.

Area 7. Student admission, progression and welfare.

Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression and certification.

In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational program in all advertisings for prospective national and international students.

Formal cooperations with other VEEs must also be clearly advertised.

UAX applies pre-defined regulations that cover all phases of the student "life-cycle" that are published in our website under the heading: https://www.uax.com/portal-de-transparencia/normativa (rules and regulations). This website includes all the information pertinent to student admission, progression and certification. It is divided into 3 areas:

- General student information: admission procedures, student fees, rules and regulations for progression and certification of undergraduate and graduate students.
- Specific international student information.
- Rules and regulations for use of services and facilities.
- Academic Calendar.

All aspects of the educational programs offered by the VF are offered to prospective students through our website under the heading https://www.uax.com/titulaciones/grado-en-veterinaria where they have access to full academic programs, teacher information and grant availability.

Formal cooperation with other VEEs are advertised through our website under the heading https://www.uax.com/oficina-de-relaciones-internacionales where international programs such as Erasmus and Bilateral Agreements outside of the EU are described.

Standard 7.2: The number of students admitted must be consistent with the resources available at the VEE for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.

Table 7.2.1. Number of new veterinary students admitted by the VEE

Type of students	*2021-22*	*2020-21*	*2020-19*	*Mean*
Standard students	201	193	178	190
Full fee students	n/a	n/a	n/a	n/a
Total	**201**	**193**	**178**	**190**

Table 7.2.2. Number of veterinary undergraduate students registered at the VEE

Type of students	*2021-22*	*2020-21*	*2020-19*	*Mean*
First year	206	197	198	200,33
Second year	220	201	247	222,66
Third year	218	233	227	226
Forth year	182	206	216	201,33
Fifth year	206	225	206	212,33
Total	**1032**	**1062**	**1094**	**1062,66**

Table 7.2.3 Number of veterinary undergraduate students graduating annually

Type of students	*2021-22*	*2020-21*	*2020-19*	*Mean*
Standard students	173	203	204	193,3
Full fee students	n/a	n/a	n/a	n/a
Total	**173**	**203**	**204**	**193,3**

Table 7.2.4. Average duration of veterinary studies

Duration	*% of the students who graduated on 2021-22*
+ 0**	54,3
+ 1 year	21,3
+ 2 years	20,1
+ 3 years or more	4,3

Table 7.2.5. Number of postgraduate students registered at the VEE

Programs	*2021-22*	*2020-21*	*2020-19*	*Mean*
Interns	12	12	12	12
Residents	4	2	3	3
PhD Students	16	11	5	10,6
Other				

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account of the fact that students are admitted with a view to their entry to the veterinary profession in due course. The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the program successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE.

Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.

As Veterinary is a highly demanded degree and admission is limited, students must follow a special admissions procedure detailed under the heading https://www.uax.com/portal-de-transparencia/normativa (rules and regulations). New student applications are ranked using the following selection (for standard students as there are no full fee students):

- Academic records (70%) from first year bachillerato studies.
- Specific entry exam (20%): includes entry level scientific knowledge in biology and chemistry.
- Personal and academic competency test (5%).
- Foreign language test (5%): English for Spanish native speakers and Spanish for foreign students.

Following Spanish Royal Decree 822/21 of the 28 of September, 5% of the offered positions for new students must be reserved for disabled and ill students. These students are ranked based on the same selection criteria.

The UAX admissions department is responsible for student selection based on the selection criteria and requirements that have been approved by the VF Dean´s Office. Communication between these two departments is constant and fluid.

The appeal process as well as the criteria and transparency of the procedures are published in our website under the heading: https://www.uax.com/portal-de-transparencia/normativa (rules and regulations).

The number of admitted students in Spanish programs is approved by the Spanish Ministry of Education and recognized throughout Spain. In the case of Veterinary Degree programs, the number of seats must be also approved by the General Conference on University Policy.

For the accreditation, the University drafts a degree proposal that contains, among other points, the numbers of seats, the suitability and sufficiency of the faculty, or the educational resources needed (facilities and equipment, staff, healthy and diseased animals, material of animal origin), to facilitate student success. This proposal is evaluated by an assessment agency for the Ministry of Education, appointed Fundación para el Conocimiento Madri+d as the assessment body in the university sphere of the Community of Madrid, doing an external rigorous peer ex-ante analysis. The Governing Council of Ministries grants final approval.

3 years after the degree has been implemented, there is a follow-up process by the Assessment agency to monitor that the degree is following the initial planned Project; and before a period of 8 years from verification, the Fundación para el Conocimiento Madri+d conducts an onsite assessment (renewal of accreditation, ex post accreditation) by means of an external panel to assess the project and the main results of the program. They make a report that determines favorable or unfavorable resolution for the renewal of accreditation.

The prospected number of new students admitted by the UAX VF will remain those admitted by Spanish authorities for based on available resources and foreseeable requirements.

Standard 7.4: There must be clear policies and procedures on how applicants with disabilities or illnesses are considered and, if appropriate, accommodated in the program, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.

Following Spanish Royal Decree 822/21 of the 28 of September, 5% of the offered positions for new students must be reserved for disabled and ill students. These students include those with a disability equal or more than 33%, students that require permanent educational support associated to personal circumstances of disability, or who needed resources or support for complete educational inclusion in prior studies. These students are ranked based on the same selection criteria.

The candidate must contact the Equality and Attention to Functional Diversity Unit in the UAX for a personalized attention plan that will ensure his/her integration into university life. The Dean´s office is contacted when the needs and degree of disability or illness are identified and documented, and a plan is designed together to ensure that the student can meet the ESEVT Day One Competences by the time they graduate. An active tutorial program together with continuous follow-up of these students ensures that these competences are met.

Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The VEE must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately. The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.

Per UAX's educational model, programs are designed based on the principles of quality and integrity to ensure that the learning experience and academic results are consistent, rigorous, and valuable to students and the community. The basis for decisions on progression (including academic progression and professional fitness to practice) is available to the students through our website under the headings https://www.uax.com/portal-de-transparencia/normativa (rules and regulations). VF students are not granted a Veterinarian status if they have not passed all required 300 ECTS of the approved program. Passing criteria for all the subjects are available in the subject guidelines.

Student progression (class attendance, grades, etc...) is documented on our online campus daily. This information is monitored individually every month by the student´s tutor and when problems arise, the student and family (if the student is not financially responsible) are contacted and remediation plans are put in place. Tutors are VF teachers that receive training for mentoring and implementation of remediations plans. These plans include one-on-one student- tutor and student/parents -tutor sessions. anxiety control tips or study skills labs offered by Student Services.

The UAX student services department provides students with the support they need to succeed in their academic programs, through personalized attention. Students who do not perform adequately are specially followed by the Psycho-pedagogical Team in the Student Services Department.

The VF program offers the following attrition rates: 2.52% on 19/20, 2.22% on 20/21, 4,03% on 21/22. Financial problems are one of the primary reasons for students' attrition. When analyzing VF student attrition, most students transferring to other

universities transfer to public universities with lower taxes. Another main reason for first-year students drop out is that they are unprepared for the academic challenges of the degree in Veterinary and they cannot meet the VF minimum academic standards.

Core to UAX's operational and educational model is the systematic tracking of key student outcomes, performance, attrition, and satisfaction indicators to monitor and aim at continuous improvement in the quality of its program offerings and services.

The results of academic indicators are monitored annually, shared and disseminated internally, and reported to the Ministry of Education. Since 2010, Spanish universities are required to follow a mandatory process of reporting university information to different regulatory bodies. For this purpose, the Ministry of Education provides electronic access to its Integrated University Information System (SIIU); each year, UAX uses this platform to report data on its enrolled students as to different academic indicators. Based on the data provided via the SIIU, the Ministry prepares statistical studies, publishes the annual report on Data and Figures of the Spanish University System with aggregated information on the indicators of Spanish universities, provides universities with information on their institutional performance with an individual controlled-access system, and provides the public (students, professors, researchers, etc.) with academic information on interest.

In late 2019, the Technology and Transformation department appointed a Data Manager and created the Data Government Office and since then some Academic Scorecards that provide information on these indicators, broken down to different levels have been created. Data are presented by program and with a year-over-year comparison. Annual reports are shared with the governing board, and faculty leaders, to inform improvement plan and initiatives at UAX.

Student retention and progression is a concern for every member of the UAX community. A good example of how the institution uses information on student retention, progression and completion of programs to make improvements is in the retention plan in place. Special attention is given to students identified at risk.

UAX takes part in networking initiatives, which provide a great opportunity to apply standards, get to know benchmarks, and to be inspired by best practices regarding the processes and for collecting and analyzing information.

UAX's retention plan focuses on new students, during the first-year experience. It constitutes a great example of how the institution not only gives importance to providing students with a better experience but also values the positive impact on the financial sustainability that better retention rates brings.

The admission procedures, criteria, number of admitted students and services to the students are proposed by the Dean´s office and are finally decided by the Governing Committee and Directing Committee. They are communicated to staff, students and stakeholders through our website and are implemented, assessed and revised through our QA system (point ORG 1.3. of the SIM Agenda).

Standard 7.6: Mechanisms for the exclusion of students from the program for any reason must be explicit.

The VEE's policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.

Description of the mechanisms for the exclusion of students Description of the appeal processes.

The Alfonso X el Sabio University has two regulations that may lead to the expulsion or dismissal of the student from veterinary studies: the Permanence Regulation and the Rules of Coexistence and Disciplinary Regime. The first rule

(Permanence Regulation) establishes in general the cases of exclusion, with special emphasis on the lack of academic performance. The second norm (Rules of Coexistence and Disciplinary Regime) details the behaviors that are considered disciplinary misconduct, some of which (very serious offenses) can lead to a period of expulsion from the University of up to three years. Against the decision of the Rector, who exercises the disciplinary power, the student has recognized the power to file appeals before the Spanish Courts of Justice. UAX applies pre-defined regulations that cover all phases of the student "life-cycle" that are published in our website under the heading: https://www.uax.com/portal-de-transparencia/normativa (rules and regulations).

Standard 7.7: Provisions must be made by the VEE to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, career advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the program. This shall include provision of reasonable adjustments for disabled students, consistent with all relevant equality and/or human rights legislation.

There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).

The services available for students include:

- Admissions / Registration Office.
- Administration, Secretary and Students Office.
- Office for Professional Orientation and Career Advice.
- Student Services Department and tutoring and mentoring services.
- Sports clubs, VF- specific volunteer clubs, and Intenational Student´s Clubs.

Student physical, emotional and welfare needs are attended by the Psycho-pedagogical Team in the Student Services Department that includes 4 licensed educative psychologists. This team offers listening and counselling, assistance in case of illness, impairment and disability, as well as exam anxiety control courses and personalized training. UAX has an Equality and Attention to Functional Diversity Unit that ensures an adequate integration of students, environment, resources and support. The Dean´s office is contacted when the needs and degree of disability or illness are identified and documented, and a plan is designed together with academic tutor, teachers and the Psycho-pedagogical Team. Specific plans and protocols are adapted to the student's situation and are personalized including:

- Actions during classes (for example, specific spots for them in class so they can exit easily if needed or closer to the teacher, service dogs or hearing devices).
- Actions during exams (more time is offered for exam completion for certain disabilities).
- Application processes for examination delay or class attendance dismissal during hospitalization, surgical procedures or home lockdown due to medical conditions. These permits must be officially granted by the Rectorate´s Office and the Secretary General.

At the end of every academic year, the process with each student is evaluated and a plan is proposed for the following academic year.

Students have the possibility to report to the University Student Advocate, any injustice, grievance or claim related to a conflict or discrimination at the University based on equality and rights described on Spanish Royal Decree 1791/2010. The University Student

Advocate is the figure responsible for the application of the rules and regulations for coexistence and disciplinary regimens at UAX.

Reported student grievances are evaluated by a Coexistence and Disciplinary Commission that includes the Rector, Secretary General, the University Student Advocate and the Faculty Dean. The commission activates the stablished protocol described under the heading https://www.uax.com/portal-de-transparencia/normativa by which the grievance is resolved using mediation when possible.

Standard 7.8: Mechanisms must be in place by which students can convey their needs and wants to the VEE. The VEE must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the VEE with national and international legislation and the ESEVT Standards.

The Service for Assistance and Attention for the Student and Familiy (SAAEF) offers a confidential environment for offering suggestions, comments or complaints regarding the University and the VF. This service receives and manages all the complaints and suggestions regarding the overall functioning of the VF as well as complaints and concerns regarding compliance with the VEE with national and international legislation and the ESEVT Standards. This information is transmitted to the Dean´s Office and an official reply is sent within a maximum of 10 working day.

Comments on Area 7

Students admission and progression systems have greatly improved at the VF with the new addmissions team, clear admissions porcess and new progression indicators and actions. Student welfare is one of our number one priorities at UAX and effective systems are put in place to assure their wellbeing. New strategies like professional VetTalks have had a great impact in orienting professionally our students. Our personalized tutoring system provide an excelnt support system for students.

Suggestions for improvement in Area 7

A personal interview could be added to the admissions process to further improve this process as well as to anticipate certain student needs.

8

Area 8

Student assessment.

Area 8. Student assessment.

Standard 8.1: The VEE must ensure that there is a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the program towards entry-level competence.

The Veterinary Faculty strategy for assessment of students is based on the use of the most effective method of evaluation of the different competences and skills. For this purpose, subject coordinators can choose between the methods they consider most appropriate, and the performance of these methods is evaluated with the Deans Office in QA meetings together with information obtained from coordinators from other subjects, students and stakeholders. Coordinators, and academic staff in general, are offered training in evaluation methods specific to Health Sciences for example, or for exams organized through the Moodle Platform.

The specific methodologies for the assessment of acquisition of the different skills and knowledge are specified below:

- **Theoretical knowledge:** although the specific methodology depends entirely on each subject, the main method used is the written examination. Different subjects have different styles of written exams, although most of them include any of the following types of questions: multiple-choice questions, short answer questions, essay questions and the matching or fill-in-the-blank questions. The exam questions are written based on the number of topics taught by each professor, assigning a certain percentage of questions to each topic in the program of the specific course. Regardless of the written exam style chosen, the specific methodology is described in the teaching guidelines of each course, alongside the percentage the written exam represents in the final grade. The methodology chosen depends on the teaching material and is freely designed by the academic staff primarily involved in the teaching of each topic.

- **Pre-clinical practical skills:** the main methodology to assess pre-clinical skills is based on the development of problem or case-solving written or oral exams. Some of these exams require the use of specific software programs to manage and solve the proposed scenario. These types of exams are based on the analysis of written clinical cases, clinical scenarios or even images. The specific methodology is described in the teaching guidelines of each course, alongside the percentage the assessment represents in the final grade. The final content and specific design will depend on each course and is freely designed by the academic staff primarily involved in the teaching of each topic.

- **Clinical practical skills:** the assessment of the clinical skills acquired during clinical activity is carried out through different systems. In general, students are directly supervised by at least one professor during their clinical performance in clinical rotations or clinical lab work with mannequins. During this time each student must fill in a handbook where day-1 skills are listed and logged. Every time one of these skills is correctly performed, the supervising professor signs the log. Additionally, a case log of all clinical cases in which the student has been involved with is kept by each student. At the end of the academic year all handbooks and case logs are checked by the course coordinator. On top of that, an individual assessment form is kept for each student where different parameters of the student performance are assessed (attitude, behaviour, punctuality,

interest, general level of theoretical knowledge, professional demeanor, etc). Other courses may assess acquisition of clinical skills by evaluation of clinical performance on a one-to-one basis with live animals or mannequins. Some courses may opt for written multiple-choice question exams at the end of practical skills activity as a mean of assessment. These written assessments of clinical practical skills are usually included in the same official exam sitting sessions where theoretical knowledge is assessed. The specific methodology is described in the teaching guidelines of each course, alongside the percentage the assessment represents in the final grade. The final content and specific design will depend on each course and is freely designed by the academic staff primarily involved in the teaching of each topic.

- **Soft-skills:** Soft skills are evaluated transversally in most courses of the whole curricula, since written reports, bibliographic reviews, oral presentations and debates are inherent part of the yearlong academic activities. The Final Degree Project is a particularly representative academic activity where the most relevant soft skills are evaluated, since bibliographic research, synthesis ability, interpretation of data, written, oral and non-verbal communication skills are evaluated. In these subject students are also exposed to having to deal with pressure, to learning on how to manage their time effectively, to being flexible and to finally deal with criticism both from their tutor and the board of professors that will evaluate their project at the end of the academic year.

Standard 8.2: The assessment tasks and grading criteria for each unit of study in the program must be published, applied consistently, clearly identified and available to students in a timely manner well in advance of the assessment. Requirements to pass must be explicit.

The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments.

Mechanisms for students to appeal against assessment outcomes must be explicit.

The specific details of the assessment criteria and procedures of each course are meticulously explained on the first day of classes at the beginning of the academic year in each course's introductory lecture. Additionally, they are clearly stated in all the courses teaching guidelines that are publicly published on the online campus resource for all students to review whenever needed.

However, the general details of the evaluation process are officially regulated by the university regulatory framework (Sistema de Gestion de Calidad, SGC), ensuring that exam periods are published sufficiently in advance. In fact, it is the university that as a whole coordinates scheduling and room assignment for the whole duration of the exam period during the official sitting sessions.

The awarding grades' process is also stated in detail in the teaching guidelines, and they are communicated to the students on the first introductory lecture at the beginning of the academic year. The final grades for each subject are expressed using a scale of 0 to 10 to one decimal place, which is complemented by the corresponding qualitative scoring system: 0 - 4.9: Fail (Suspenso - SS); 5.0 - 6.9: Pass (Aprobado - AP); 7.0 - 8.9: Merit (Notable - NT); 9.0 - 10.0: Distinction (Sobresaliente - SB). A Distinction with Honors (Matrícula de Honor) may be awarded to students who have obtained a grade above or equal to 9.0. This special distinction can only be awarded

to a maximum of 10% of the eligible students for that subject; where there are fewer than 20 students, this distinction may only be awarded to one student.

During the academic year, there are two official sitting sessions, the Ordinary (held in January and/or May, depending on courses being just a semester or a year long) and the Extraordinary exam sitting session (held in July). Additionally, there are two non-official sitting sessions where a mid-term assessment is being held. Depending on the course, this mid-term exam may be able to clear content off the official sessions' exams. Regardless, the grade obtained in the mid-term exam/s holds up to 20% of the final grade, while the exams taken in the official sessions hold up for the remaining 80% of the grade.

Once exams are graded, the course coordinator is responsible for the publication of a list of provisional grades, and the rest of the review and appeal processes follow the university's general set of standardized procedures. In fact, the SGC of the university dictates the timings for publications of grades and scheduling of review session. As such, grades must be published in a maximum of 7 days after the exam, and the review session must be scheduled 2 days after the publication of grades. The specific dates are publicly available online on the university website (in a specific section of the online campus where all these details are provided for all university students to access).

The exam review session is an essential part of the teaching-learning process and the starting point for feedback. Students can find out their provisional grade on the online campus within a period of no more than 7 days after taking any exam. As well as the provisional grades, location, date and time of the review sessions is made public at the time of results publication. The review session is scheduled 2 days after the publication of the exams, as per SGC established procedures. Depending on the course the review sessions details may be different, based on criteria of the individual course coordinator. Some course coordinators may ask students to request in writing the review of their exams, while others may just set up a public and open sessions for all students to attend on a voluntary basis. The review process itself also varies depending on the course and coordinator ranging from one-to-one sessions in which student and professor review individually and in detail the exam, to public class sessions in which the most difficult questions are analyzed and discussed in group. In general, both the coordinator and a minimum of one more professor of the course is responsible for running these review sessions. As such, a minimum of 2 professors are always present.

In the event of disagreement regarding the results of the evaluation and review, students may submit an appeal to the Dean, that will bring the individual case to the Junta de Evaluación that is held at the end of each official exam period (that is January, May and July). In these sessions the whole academic board of the UVF evaluates the individual cases.

Additionally, to the standard processes hereby stated, the university has a system of academic tutors whose main role is to develop a specific monitoring program for students who are underperforming, in coordination with the Dean, the course coordinators and rest of the academic body. These body of academic tutors are also responsible for facilitating the adaptation of first year students to the university environment and for improving academic performance in all students in general. In fact, all students have a designated academic tutor during their time at the university.

Standard 8.3: The VEE must have a process in place to review assessment outcomes, to change assessment strategies and to ensure the accuracy of the procedures when required. Program learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.

All the content of the teaching guidelines for subjects, including the evaluation criteria and systems, are reviewed annually by the course coordinator and the rest of professors during coordination meetings that are held at the end of the academic year (in anticipation of the following academic year). In general, there are three/four main official mandatory coordination meetings that are held at the beginning of the academic year, after the first official sitting session of exams, after the second official sitting session and, finally, at the end of the academic year. The meeting where the main decisions are made for the following year is the final academic year coordination meeting.

The acquisition of expected theoretical knowledge, day- one skills and other professional competences, as well as the evaluation systems used to assess their acquisition, are described in detail for each subject in the teaching guidelines of each course. During the final year coordination meeting of professors and course coordinator, an analysis of the results is performed and based on those results, amendments are made on the following year course teaching guidelines.

Standard 8.4: Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the program and individual units of study. The VEE must ensure that the programs are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

All general and specific competences are integrated in the different courses of the Veterinary Degree curricula, making sure that students acquire them over the five years. Obviously, not all courses will include all competences, and as such, some may include and emphasize the acquisition of certain skills and competences in particular. However, overall, the design of the curriculum per se guarantees the inclusion of all competences during the five-year program. The evaluation systems and criteria in each course are also designed specifically to make sure learning outcomes proposed in the curriculum are being met.

The participation of students in all phases of the learning process is being promoted mainly by the creation of the role of student collaborator. These students are included in the teaching process and the design of the teaching methodology itlsef. Different courses along the whole curricula foresee the existence of this very particular student role, and they are now part of the daily routines and activities in many departments (anatomy, pathology, surgery, anesthesiology, emergency and critical care, etc). Additionally, the technological tools offered by the university allows professors to increase the participation level of all students in the acquisition of knowledge. Several initiatives of training for professors in the different digital options during the past 5 years have allowed the professor body of the university to be particularly pro-active in the development of new technology teaching tools (such as creating digital content in social media or the use of different teaching platforms to gain students participation in the learning process). Examples can include the creation of Youtube channels were learning resources are being created and/or uploaded, profiles on social media such as Instagram or Twitter where teaching material is being made available to students in a more accessible and attractive format.

Standard 8.5: Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the student logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study program have been fully completed by each individual student.

Every graduate is evaluated through written or direct assessments to ensure a minimum level of competence for the ESEVT Day One Competences (DOCs). Day One competences are identified in the subject academic guidelines of the degree and are a requirement to receive a passing grade. They are assessed using different methods depending on their nature:

- Written assessments are used for DOCs related to, for example, demonstration of knowledge, ethical or legal responsibilities, critical and clinical thinking, ability to practice evidence-based medicine, herd-health management, clinical and inspection reports, or prescription. They can be in the form of multiple-choice tests, short-answer assignments or exams, written reports, literature reviews, imagen identification, calculations or clinical case resolution.

- Direct assessments are used for DOCs related to communication abilities and other soft skills as well as for evaluation of clinical skills. They can be in the form of oral presentations, teamwork or individual exercises, multidisciplinary projects, case rounds and clinical case resolution

discussions, together with performance of clinical evaluations, treatment plan and calculation and clinical procedures. A logbook is used for clinical procedures and is reviewed prior to the student receiving a pass grade in their practical training for a clinical subject.

Comments on Area 8

The Veterinary Faculty strategy for assessment of students is based on the use of the most effective method of evaluation of the different competences and skills. For this purpose, subject coordinators can choose between the methods they consider most appropriate, and the performance of these methods is evaluated with the Deans Office in QA meetings together with information obtained from coordinators from other subjects, students and stakeholders.This flexibility is considered a strong point making studnet assesment very efficient.

Suggestions for improvement in Area 8

Clincal skills evaluations could be further improved by the use of more models and increased number of practical hands-on examninations.

Area 9

Academic and support staff.

Area 9. Academic and support staff.

Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with national and EU regulations and must apply fair and transparent processes for the recruitment and development of staff.

A formal training2 (including good teaching and evaluation practices, learning and e- learning resources, biosecurity and QA procedures) must be in place for all staff1 involved with teaching.

Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.

All the requested competences of the veterinary program are covered by the current curriculum and are offered by qualified and prepared staff. Our global strategy is to offer an up to date knowledge taught, mainly, by professionally active veterinarians that are connected to both academia and real life demands and changes in the veterinary profession. In order to assure that these professionals are fit for teaching and assessing, they are offered annual courses through different platforms (My UAX space, UAX Academy, UAX FacultyLAB, which are teacher and staff training platforms inside the campus web, etc…) These courses are online, blended or in person and are offered by different departments:

- The Innovation in Teaching Methodologies Department offers training in: new teaching methodologies, digital teaching, different assessment protocols, rubrics and exam types, practical training and evaluation in clinical settings, multidisciplinary laboratories, and soft skills.
- The Library and Research Department offers training in learning resources, including (e-) learning resources, together with training in research methodology, evidence-based medicine, statistics for health research. Biosecurity protocols and QA procedures are offered directly through the.
- Deans Office offers training in Biosecurity for teachers, students and staff through the Biosecurity Working Group which includes personnel from academic staff, Veterinary Teaching Hospital, Teaching farms and ambulatory practitioners. This office also offers training, rubrics and QA protocols together with the Quality Assurance Department.

Most academic staff involved in veterinary training are veterinarians (more than 2/3). Non-veterinarian academic staff mainly participate in training of basic subjects and basic sciences and include qualifications such as chemists, physicists, biologists, agricultural, environmental and data engineers, pharmacologists, biochemists and food technologists.

Standard 9.2: The total number, qualifications and skills of all staff involved with the program, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational program and fulfil the VEE's mission.

A procedure must be in place to assess if the staff involved with teaching display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.

Table 9.2.1. Academic staff** of the veterinary program			
Type of contract	*AY (2021-22)*	*AY-1 (2020-21)*	*AY-2 (2020-19)*
Permanent (FTE)	125,5	125	125
Temporary:			
Interns (FTE)	3,6	3,6	3,6
Residents (FTE)	6,5	5,5	5
PhD studients (FTE)	9,5	4,5	4,5
Practitioners (FTE)	4,5	4,5	4,5
Others (specify) (FTE)			
Total (FTE)	**149,6**	**143,1**	**142,6**

Table 9.2.2. Percentage (%) of veterinarians in academic staff			
Type of contract	*AY (2021-22)*	*AY-1 (2020-21)*	*AY-2 (2020-19)*
Permanent (FTE)	65,8	69,2	69,2
Temporary (FTE)	16,1	12,6	12,1

Table 9.2.3. Support staff of the veterinary program			
Type of contract	*AY (2021-22)*	*AY-1 (2020-21)*	*AY-2 (2020-19)*
Permanent (FTE)	123	123	123
Temporary (FTE)			
Total (FTE)	**123**	**123**	**123**

Table 9.2.4. Research staff of the VEE			
Type of contract	*AY (2021-22)*	*AY-1 (2020-21)*	*AY-2 (2020-19)*
Permanent (FTE)	4	4	4
Temporary (FTE)	1	1	1
Total (FTE)	**5**	**5**	**5**

The need and number of FTE academic and support staff are evaluated annually considering the number of undergraduate students (this number is decreasing steadily), comments and evaluations of teachers, subjects and practical training provided by our students in our QA evaluation system (Medallia), conclusions from the Follow-up and Improvement for the Veterinary Program Committee (SIM) and Faculty Strategic Plan. These criteria have driven the increased showed in the evaluated years.

Throughout the next 3 academic years, the prospected academic and staff FTEs will be provisioned using the same information sources and criteria. The current Faculty Strategic Plan (2021-2024) already includes an increased recruitment of teachers holding a PhD or on a PhD program or nationally accredited (10-20 new teachers a year), more teaching hours available for outstanding teachers resulting from QA evaluations and more hours available for research and publications, regardless of the descending number of undergraduate students. Prospected FTEs for the following 3 academic years would be: 154.6 FTEs in 22/23, 159.6 FTEs in 23/24, and anticipating the same rationale in the next Faculty Strategic Plan we should expect to have 165 FTEs in 24/25.

Selection and recruitment of teaching staff follows the following program:

1. **Identification of the need to include a new teacher** because of the addition of new content in the subject, improvement of the current content, change in availability of a current teacher, dismissal or voluntary leaving of a teacher, problems with competency acquisition or negative teacher evaluation. This identification is transmitted to the Deans Office by the Subject Coordinator, or identified by QA and Deans Office personnel through SIM conclusions, students' feedback outside of SIM, or satisfaction results and comments from Medalia program.

2. **Preparation of a job description and offer** to upload to the recruitment system (Infojobs) and relevant platforms (professional colleges and associations) if necessary, and to the veterinary faculty staff. Prepared by the Deans Office.

3. **Publication of job offer** by the Human Resources Department.

4. **Evaluation of submitted CVs** by the Deans Office and contact with the selected candidates.

5. **Personal interviews** with Dean and/or Head of Studies and subject coordinator.

6. **Presentation of selected CV** and related information like prospect FTEs associated to the candidate to the Human Resources Department.

7. **Signing of contract** with the Human Resources Department.

8. **Organization of teaching agenda and training courses** by all three departments mentioned above.

Selection and recruitment of support staff follows the same program except that there is also involvement of additional specific departments at steps (1) through (5) as support staff may be needed al the VTH, specific laboratories, common facilities or main support services such as IT. Training in these cases is organized and monitored mainly by the soliciting department, except for the core company training (ethics, risk prevention., etc).

Consultation, outside work and private practice is fostered by our Veterinary Faculty and University policy in general as we believe updated education can only be offered when the teacher is also actively involved in the profession or in research activities in and outside the University. Our contracts do not ban this type of activity if they do not compromise the responsibilities agreed with the University or the quality of teaching.

Standard 9.3: Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The VEE must clearly define any systems of reward for teaching excellence in operation.

Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff must have a balanced workload of teaching, research and service depending on their role. They must have reasonable opportunities and resources for participation in scholarly activities.

Staff are encouraged to develop and extend their teaching and assessment knowledge via yearly courses offered through our UAX Faculty Lab platform, and UAX Academy, as well as access to in-house courses, masters and PhD programs in education. The VF and UAX reward teaching excellence through our:

- Best Teacher of the Year award. Based on student evaluations.

- VetTalent program: identification and promotion of teachers that can obtain national teacher accreditation. They are offered courses and grants to help them speed up the process of accreditation.

- Accreditation salary complement offered as a bonus over their salary if they are holding national accreditation.

Full-time contracts comprise a balance between teaching, research, services or management. All the contracts extended to UAX academic staff are permanent, except for the positions that have a time-span limitation due to their connection to postgraduate training at the VTH (interns and residents).

Standard 9.4: The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised program for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures. Staff must have the opportunity to contribute to the VEE's direction and decision-making processes.

Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.

All the programs dedicated to academic and support staff are communicated by the Veterinary Faculty through the Dean´s Office as well as through the Internal Communication System. Programs for professional growth and development have improved vastly in variety, organization and impact in the last two years and staff are now offered new opportunities to obtain accreditations, improve their publication records and quality, soft-skills, participation in continuing education and research activities.

Wellbeing and personal growth opportunities are offered through the Be Healthy UAX Initiative, UAX Academy and UAX My UAX Space. Courses and activities include mindfulness, nutrition, fitness challenges and yoga.

Promotions and appraisals are offered by the Dean´s Office together with Human Resources Department and the Rector´s Office. Promotion (in the means of increases in retribution and in teaching, research or management responsibilities) are offered based on achievement of PhD status, research grants, national or international accreditations as teachers or in their professional fields, publications, results of teaching satisfaction queries and overall commitment to the Veterinary Faculty and University. Appraisals are offered through the Medalia QA system, subject coordinators and Dean´s Office.

Mentoring and support procedures are offered via the Dean´s Office using a "buddy" system by which a junior or newly incorporated staff member is paired with a senior staff member to facilitate the onboarding process.

Academic and support staff can offer their ideas and opinion through their subject and area coordinator, participating in the SIM or directly to the Dean´s Office. Their participation in final decision making depends on their status (teacher, subject coordinator, area coordinator, area director, teacher SIM representative) as Faculty decisions are mainly debated in evaluation meetings, SIM meetings, topic meetings, University Governing Council or Management Committee. Regardless, all staff members are invited to express their ideas and concerns.

Standard 9.5: A system for assessment of teaching staff must be in operation and must include student participation. Results must be available to those undertaking external reviews and commented upon in reports.

Teachers are evaluated by students through our satisfaction evaluation system Medallia. This system sends online surveys to the students at the end of each semester. Students voluntarily grade the teacher from 0 to 10 regarding their satisfaction in the following items:

- Information provided about the subject: objectives, evaluation criteria, ...
- Clarity of explanations.
- Provides activities that stimulate student participation and work in groups.
- Availability to answer questions related to the subject and its evaluation.
- How assessments give them the opportunity to reflect their knowledge.
- Information provided about my learning curve.
- Time taken to grade exams and activities.

Students are also encouraged to give written comments regarding teachers, especially if graded under 3 and over 9. These comments are shared with the SIM committee, subject coordinators and internal (Vice Rectorate for QA) and external reviewers, together with the Deans office analyses of the results and subsequent action plan.

The strategy for allocation, recruitment, promotion, support and assessment of academic and support staff is proposed and authorized by the Governing Council- This council includes all the Deans and Directors, Vice-Rectors, Rector and Human Resources representatives). It also oversees implementation, assessment and revision. They are communicated to staff, students and stakeholders through the Dean´s Office, Internal and External Communication Department.

Comments on Area 9

Most academic staff involved in veterinary training are veterinarians (more than 2/3). Non-veterinarian academic staff mainly participate in training of basic subjects and basic sciences. The hallmark of our VF is that most of these teachers are active and relevant professionals in all the branches of the veterinary fields.

Suggestions for improvement in Area 9

The number of specialized veterinarians should be increased as well the encouragement of the obtention of the national acreditatiosn. The number of support staff at teaching farms could be improved.

10

Area 10

Research programs, continuing and postgraduate education.

Area 10. Research programs, continuing and postgraduate education.

Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree program through research-based teaching.

The UAX Veterinary Faculty is a higher education center where research activities are complementary to veterinary education. The staff develop research projects funded by international, national and regional research agencies as well as by corporate grants . As a result of these research activities, faculty members participated in 80 scientific publications in indexed journals during the last three school years; 94.8% of them were included in Q1 and Q2 JCR indexed scientific journals and had a 3.7 average impact factor. The complete list of publications is included in Appendix 10-1. The VF has been increasing its scientific production during the last years, thanks to the effort made by UAX to promote scientific production. A graph with this scientific production is shown in Appendix 10-2.

In this regard, it is important to note that this increase has been achieved through the procurement of research funding of different sources and the establishment of several scientific collaborations.

The VF research groups undertake research work in the following fields:

- Clinical anesthesia and analgesia.
- Veterinary diagnostic imaging.
- Reproductive pathophysiology.
- Animal production.
- Food safety in meat products.
- Parasitology and parasitic diseases.
- Equine sport medicine.
- Pathology.
- Ethology and animal welfare.
- Cancer in companion animals.
- SARS-CoV-2 in animals.

Table 10.1.1. Major funded research programs in the Establishment which were on-going during the last three full academic years prior to the Visitation.

The VF obtained in 2020 the official approval of a new veterinary PhD program called “Veterinary Health” (PDSV) and 23 PhD thesis have been undertaken during the last three academic years, under the direction of VF faculty members (Table 10-2). As part of PDSV and VF, there is a permanent Commission for R&D (Research and Development) composed of faculty members from the different academic areas (Basic Sciences, Animal Production, Clinics and Food Hygiene) to establish a strategy for research within the VF to facilitate the training and inclusion of veterinary students in different research areas. Academic Committees for the PhD theses have also been established, and they include external researchers. They evaluate the research plan and the activities of their PhD students and carry out an integral follow-up of the performance of the students during their whole PhD training. In our PhD program, it´s

mandatory to obtain annually a positive assessment from the Academic Committee and to publish a total of 1-2 papers in peer-reviewed, international journals as a minimum requirement for the defense of PhD-theses. Moreover, UAX provides general research services to researchers, students and professionals, such as statistical analysis, professional English translation and scientifically related courses. Among them it is worth mentioning a special course about "Experimental Design and Research Projects with Laboratory Animals" in accordance to DIRECTIVE 2010/63/EU of the European parliament and to the council of 22 September 2010 on the protection of animals used for scientific purposes; and the Spanish law Orden ECC/566/2015. This course is mandatory for PhD students and it´s also offered to other students and teachers.

Standard 10.2: All students must be trained in scientific methods and research techniques relevant to evidence-based veterinary medicine and must have opportunities to participate in research programs.

Veterinary Sciences are based on knowledge arising from scientific method research and evidence-based veterinary medicine. As stated before, both faculty and clinicians are permanently linked to scientific activities such as congresses, continuous education programs and research projects. So, scientific methods and research techniques are incorporated in lectures and practical teaching.

The Veterinary degree curricula at UAX includes several courses that contribute to the acquisition of essential skills for the performance of future research activities by our students. There are compulsory courses such as "Veterinary biostatistics" that is taken during the first semester of the Veterinary Medicine Degree, consisting in 6 ECTS. In addition, it is usual to include class assignments based on research article presentations. Finally, the Final Degree Project is a compulsory fifth year course, worth 6 ECTS credits. Students must perform either experimental or clinical research work or a scientific literature review under the supervision of a faculty member. This work is assessed in the format of a scientific presentation. This project is mentored by a VF faculty member that holds a PhD degree.

The UAX Foundation (FUAX) annually offers a grant program to fund research projects. It is mandatory that these project proposals include students within their research groups. This request is carried out to enhance the student participation in research projects. Moreover, as mentioned above, the VF allows its students to participate actively on a non-compulsory basis in the research activities of our groups through collaborations, externships and different extramural research activities. Collaborations are also offered to students to take part in research practical activities in our Biomedical Research Unit. These possibilities are advertised in the classroom or laboratory setting, through public advertisement, informative displays, social networking, and open sessions.

The UAX Library offers courses for undergraduate students to initiate them on the bibliographic search and managements, databases and scientific specific searches (Table 10-3). In several subjects, students have assignments requiring bibliographical search and writing in a scientific style. As we said before, in the 5th year, the Final Degree Project (TFG) is planned and developed as a work including scientific literature search, critical assessment of the papers and research activities. This compulsory subject is assessed by means of written and oral presentation.

As for other educational activities, the VF actively participates in out-research events https://www.spain.info/en/calendar/science-week/. As such, in the last five editions, an average of thirteen workshops have been offered in our institution to society per year.

Standard 10.3: The VEE must provide advanced postgraduate degree programs, e.g. PhD, internships, residencies and continuing education programs that complement and strengthen the veterinary degree program and are relevant to the needs of the profession and society.

Table 10.3.1. Number of students at postgraduate clinical training

	21/22	*20/21*	*19/20*	
	AY*	AY-1	AY-2	Mean
PhD Programmes				
PhD programm in Veterinary Health	11	6		8,5
PhD programm in Regenerative Biology and New Therapies	5	5	5	5
Other PhD programmes	7	4	2	4,3
Total	**23**	**15**	**7**	**15**

Table 10.3.2. Number of students registered at postgraduate research training

	21/22	*20/21*	*19/20*		
Academic year	AY*	AY-1	AY-2	Total	Mean
Introduction to the use of databases search tools.	272	460	179	911	304
Use of bibliographic managers	186	239	179	604	201
Introduction to the Library	16		17	33	11
Wiley Online Library for Veterinary		134		134	45
Introduction of RefWorks		361		361	120
RefWorks advanced		185		185	62
Resources for preparing a Master´s Disertation		558		558	186
Web of Science & EndNote		185		185	62
Wiley Online Library search tools		350		350	117
How to publish in Wiley journals		119		119	40
How to publish in open access journals	82			82	27
Workshop for preparing doctoral theses	32			32	11
Total	**588**	**2.591**	**375**	**3.554**	**1.185**

* Not offered or imparted in the academic year of reference.

Number of attendees to continuing education research courses					
	21/22	*20/21*	*19/20*		
Academic year	AY*	AY-1	AY-2	Total	Mean
Wound healing update	7			7	7
Immune-mediated polyarthritis	1			1	1
Cardiopulmonary resuscitation	5	5	5	15	5
Correct radiographic technique	4	5	5	14	5
Oncolytic viroimmunotherapy in canine patients with gliomas	3			3	3
Xylitol poisoning	7			7	7
Chronic hepatitis in dogs	6			6	6
Breast tumors in small animals	6			6	6
Most frequent diagnostic errors in radiography	6			6	6
Pneumotamponade balloon inflation pressure	7			7	7
Canine epilepsy	8			8	8
Pneumonitis and aspiration pneumonia	6			6	6
Adrenal tumors	4			4	4
Surgical techniques against obstruction of the bile ducts	4			4	4
Correct use of vaporizers	3			3	3
Vestibular syndrome	6			6	6
Hyponatremia and hypernatremia	4			4	4
Summary of the AMVAC Congress	4			4	4
Traumatological diseases in puppies	6			6	6
Drugs to relieve stress in our patients	6			6	6
Fluid therapy and electrolyte disturbances	10	10	10	30	10
Introduction Image Service	10	10	10	30	10
Introduction Neurology Service	10	10	10	30	10
Patient management with parvovirus	10	10	10	30	10
Arrhythmias	10	10	10	30	10
Dystocic births	10	10	10	30	10
Interpretation of liver parameters	10	10	10	30	10
Intervention of spills	10	10	10	30	10
Introduction to Patological Anatomy	10	10	10	30	10
Total	**193**	**100**	**100**	**393**	**131**

* Not offered or imparted in the academic year of reference.

Table 10.3.4.2. Number of attendees to continuing education clinical courses.					
	21/22	*20/21*	*19/20*		
	AY*	AY-1	AY-2	Total	Mean
Interns					
Small animal internship	7	8	8	23	8
Equine internship	5	4	4	13	4,3
Total	**12**	**12**	**12**	**36**	**12**
Residents					
Anesthesia European Residency	2	2	2	6	2
Equine Surgery European Residency	1	0	0	1	0,3
Total	**3**	**2**	**2**	**7**	**2**
Master Programmes					
Master in small animal surgery	2	2	2	6	2
Master in anesthesiology	3	3	3	9	3
Master in internal medicine	2	2	2	6	2
Master in small animal emergency and intensive care	1	1	1	3	1
Master in sports medicine and equine surgery	1	1	1	3	1
Master in equine internal medicine	1	1	1	3	1
Total	**10**	**10**	**10**	**30**	**10**

The UAX Veterinary Teaching Hospital (UAX-VTH) offers specialized clinical training for graduated veterinarians, that can join different levels of clinical training, such as rotating internship programs, specialty master programs, and EBVS-approved residency programs. Additionally, specialized continuing education clinical courses is being offered to graduated veterinarians.

There are two different rotating internship programs: Equine and Small animal internship. They are both one year long. The UAX Foundation offers 10 scholarships each year for internship house officers. In the last three academic years, 100% of positions offered have been filled in (12 students/year) and no students have withdrawn from the program. The internship is a rotating program, in which the students receive advanced and rigorous training, adapted to the needs of society, in various areas of Veterinary Medicine. In the Small Animal rotating internship, the students acquire skills in internal medicine, hospitalization and intensive care, emergency, surgery, anesthesia, imaging, clinical pathology and exotic and wild animals' medicine. In the Equine rotating internship, interns receive advanced clinical training in the fields of internal medicine, sports medicine and surgery, which enables them to develop high-level veterinary services, in either an ambulatory or hospital setting. House officers are trained to diagnose and develop therapeutic guidelines, as well as to recognize conditions that require surgical treatment, to recognize life-threatening emergency situations, to

stabilize critical patients and to perform diagnostic imaging. The proposal of skills for both internship programs has been made considering the current legislation, the specialization recommendations of the White Paper on Veterinary Medicine, the Strategic Plan for the Enhancement of the Veterinary Profession of the Spanish Veterinary Association and the European Board of Veterinary Specialization. In the last three years, 23 veterinarians have achieved the small animals' internship qualification, and 13 veterinarians the Equine internship.

The UAX veterinary teaching hospital (UAX-VTH) also offers specialty master training programs, which are three years long. House officers can join one of the four master programs offered in small animals: Master in small animal surgery (2 positions available), Master in anesthesiology (3 positions), Master in internal medicine (2 positions), Master in small animal emergency and intensive care (1 position). Students interested in large animals can join the Master in sports medicine and equine surgery (1 position available) or to the Master in equine internal medicine (1 position). All positions offered for all the specialty master programs have been covered during the last three years. There were only two students that dropped out after the second year, one in the Master in small animal emergency and intensive care (2020-21) and one in the Master of Equine Internal Medicine (2020-21). In the last three years, 10 students have obtained their master's degree. Additionally, two EBVS-recognized official residency programs are currently being offered at the UAX-VTH: one by the European College of Veterinary Anesthesia and Analgesia (ECVAA) and another one by the European College of veterinary Surgery (ECVS). In the last three years, two veterinarians have enrolled in an official ECVAA program and one in an official ECVS program.

Standard 10.4: The VEE must have a system of QA to evaluate how research activities provide opportunities for student training and staff promotion, and how research approaches, methods and results are integrated into the veterinary teaching programs.

The VF has a quality assurance (QA) system in place to assess how research activities provide opportunities for student training and staff development, and how research approaches methods and results are integrated into veterinary education programs.

The aim of the QA system of the VF within the research, continuing education and postgraduate programs is to establish a system that makes it possible to consistently and reliably quantify whether the development of research generates a direct impact in 3 different areas:

- Development of students' training capacities in research.
- Promotion of the VF teaching staff.
- Integration of research activity in the teaching of the veterinary degree.

This QA system will be based on the generation of different indicators from which specific and quantifiable data can be obtained.

The indicators are the following:

1. Total no. of projects presented in public and private funding research calls, in the different areas of knowledge of the VF previously described:
2. Total number of projects funded in public and/or private funded research calls, in the different areas of knowledge (mentioned above).
3. Number of lecturers participating as researchers in the research projects, including their type of participation (principal investigator or collaborator).
4. Number of publications obtained by the teaching staff, indicating the type of research, type of publication, and the impact index and quartile (Q1, Q2, Q3, Q4) of the journal.
5. Number of students participating in research projects carried out at the VF.
6. Number of doctoral theses derived from VF research projects.

The objective of indicators 1 and 2 is to determine those areas of knowledge that have greater development in research, and to promote the integration of this research activity in the teaching programs taught.

The objective of indicators 3 and 4 is to identify teaching staff with research capacity that will enable the promotion of teaching staff to increase the number of accreditations and the number of six-year research periods obtained. Likewise, these indicators identify potential areas for improvement to increase the participation of teaching staff in research.

The objective of indicators 5 and 6 is to identify the research training capacity of the students, encouraging their participation in all areas of knowledge, which in turn allows them to obtain the appropriate training to continue their postgraduate research training, as well as the obtained research capabilities to be enrolled on doctoral theses.

The data obtained is recorded on data collection sheets and control graphs are drawn up to enable correct monitoring. The data is recorded annually, in collaboration with the Quality Management Team and the Dean's Office.

The monitoring of the indicators takes place annually, where those responsible for research quality evaluate the results obtained from the different indicators, to determine their acceptance or, failing that, to apply corrective actions that enable a process of continuous improvement.

Comments on Area 10

The UAX Veterinary Faculty is a higher education center where research activities are complementary to veterinary education. This area and the involvement of students has been greatly improved thanks to the support form the Vice-Rectorate for research.

Suggestions for improvement on Area 10

Strong competition in research, at regional and national level is a threat that is being address but needs to be considered as well as increasing available time and resources for the academic staff to particpate more actively.

List of ESEVT Indicators

Name of the Establishment:
Veterinary Faculty - Alfonso X El Sabio University.

Name & mail of the Head:
Isabel Rodríguez Hurtado irodrhur@uax.es

Date of the form filling:
9 - september- 2022.

	Raw data from the 2 full academic years preceding AY 2019-2020	21/22	20/21	Mean
1	n° of FTE academic staff involved in veterinary training	149,6	143,1	146,35
2	n° of undergraduate students	1032	1062	1047,00
3	n° of FTE veterinarians involved in veterinary training	117,1	122,6	119,85
4	n° of students graduating annually	173	203	188
5	n° of FTE support staff involved in veterinary training	123	123	123
6	n° of hours of practical (non-clinical) training	808	746	777
7	n° of hours of clinical training	736	712	724
8	n° of hours of FSQ & VPH training	372	372	372
9	n° of hours of extra-mural practical training in FSQ & VPH	38	20	29
10	n° of companion animal patients seen intra-murally	12285	11310	11797,5
11	n° of ruminant and pig patients seen intra-murally	279	258	268,5
12	n° of equine patients seen intra-murally	653	723	688
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	475	199	337,0
14	n° of companion animal patients seen extra-murally	0	0	0,0
15	n° of individual ruminants and pig patients seen extra-murally	12582	5340	8961,0
16	n° of equine patients seen extra-murally	1625	1808	1716,5
17	n° of visits to ruminant and pig herds	122	72	97,0
18	n° of visits of poultry and farmed rabbit units	6	4	5,0
19	n° of companion animal necropsies	367	344	355,5
20	n° of ruminant and pig necropsies	68	27	47,5
21	n° of equine necropsies	51	57	54,0
22	n° of rabbit, rodent, bird and exotic pet necropsies	249	113	181,0
23	n° of FTE specialised veterinarians involved in veterinary training	13,5	13.5	13,5
24	n° of PhD graduating annually	1	0	0,5

Name of the Establishment: UAX Veterinary Faculty.

Date of the form filling: 9th of september of 2022.

	Calculated Indicators from raw data	Establishment	Median	Minimal	Balance3
		values	values1	values2	
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,140	0,15	0,13	0,014
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0,638	0,84	0,63	0,007
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,654	0,88	0,54	0,114
I4	n° of hours of practical (non-clinical) training	777,000	953,50	700,59	76,410
I5	n° of hours of clinical training	724,000	941,58	704,80	19,200
I6	n° of hours of FSQ & VPH training	372,000	293,50	191,80	180,200
I7	n° of hours of extra-mural practical training in FSQ & VPH	29,000	75,00	31,80	-2,800
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	62,753	62,31	43,58	19,173
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	1,428	2,49	0,89	0,538
I10	n° of equine patients seen intra-murally / n° of students graduating annually	3,660	4,16	1,53	2,130
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	1,793	3,11	1,16	0,633
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,000	5,06	0,43	-0,430
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	47,665	16,26	8,85	38,815
I14	n° of equine patients seen extra-murally / n° of students graduating annually	9,130	1,80	0,62	8,510
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0,516	1,29	0,54	-0,024
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,027	0,11	0,04	-0,018
I17	n° of companion animal necropsies / n° of students graduating annually	1,891	2,11	1,40	0,491
I18	n° of ruminant and pig necropsies / n° of students graduating annually	0,253	1,36	0,90	-0,647
I19	n° of equine necropsies / n° of students graduating annually	0,287	0,18	0,10	0,187
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	0,963	2,65	0,88	0,083
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,072	0,27	0,06	0,012
I22*	n° of PhD graduating annually / n° of students graduating annually	0,003	0,15	0,07	-0,067

1 Median values defined by data from Establishments with Accreditation/Approval status in May 2019

2 Recommended minimal values calculated as the 20th percentile of data from Establishments with Accreditation/Approval status in May 2019

3 A negative balance indicates that the Indicator is below the recommended minimal value

* Indicators used only for statistical purpose

Appendix

Appendix 1. Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
AGUEROS LOZANO, Joaquin	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
ALONSO BLANCO, Marta	Engineer (data, agricultural or informatic systems)	PhD	1	Lectures/Seminars/Labs	Basic Science
ALONSO DE DIEGO, María	Veterinary	Specialist	1	Lectures/Seminars/Labs	Clinical Sciences
ALONSO GUTIÉRREZ, Isabel	Veterinary	Resident	0,5	Clinical training	
ALONSO MARTÍNEZ, Lucia	Veterinary	Intern	0,3	Clinical training	
ÁLVAREZ DURRIF, Teresa	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
ALVAREZ PUNZANO, Alicia	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
ARANDA CALVO, Gema	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
ARANDA NARVÁEZ, Francisco Javier	Veterinary	PhD student	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
ARENILLAS BAQUERO, Mario	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
ARRIBAS NOVILLO, Begoña	Biologist	PhD	1	Lectures/Seminars/Labs	Basic Science
ASTUDILLO RODRÍGUEZ, Julio Miguel	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
AYLLON SANTIAGO, Tania	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
AZCONA BLASCO, Beatriz	Veterinary	Resident	0,5	Clinical training	
BARBERO FERNÁNDEZ, Alicia de los Ángeles	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
BARRERO AMODOVAR, Antonio	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
BENITEZ DE GRACIA, María José	Engineer (data, agricultural or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Science
BENITO PEÑA, Alberto	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
BIRLANGA URBÁN, Francisco Javier	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
BRAVO VÁZQUEZ, Daniel Antonio	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
BUGARINI SPINELLI, Hugo	Veterinary	Academic staff	1	Clinical training	Clinical Sciences
BUXADE CARBÓ, Carlos	Engineer (data, agricultural or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Animal Production
CALLEJA BUENO, Lydia	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
CAÑELLAS BLANCO, Rocío	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
CARNOTA MARTÍNEZ, Sara	Veterinary	Resident	0,5	Clinical training	
CARRASCO PESQUERA, Lara	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Subject
CARRILLO SEGURA, Manuel	Veterinary	Resident	0,5	Clinical training	
CASALÉ PORTILLO, María José	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
CASTRO URDA, Javier	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
CEJALVO GOYANES, Teresa	Biologist	Academic staff	0,5	Lectures/Seminars/Labs	Basic Subject

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
CERECEDA CHACÓN, Alberto	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
CHAMORRO SANCHO, Manuel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
CHECA HERRAIZ, Rocio	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Clinical Sciences
CORDERO CORDERO, Ángela	Veterinary	Resident	0,5	Clinical training	
CORROCHANO CORROCHANO, Mariano	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
CORROCHANO GÓMEZ, Rufino	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
CUESTA FERNÁNDEZ, José Bernardo	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
DE ESCONDRILLAS ALGUACIL, Ainhoa	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
DE LA CALLE BARRIO, Jorge	Veterinary	Diplomate	1	Clinical training	Clinical Sciences
DE LA RIVA ANDRÉS, Sara	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
DE LA RIVA FRAGA, Claudia	Veterinary	Practitioner	0,5	Clinical training	
DE PRADO SERRANO, María Dolores	Veterinary	Resident	0,5	Clinical training	
DEL CAMPO MORENO, Rosa	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
DEL CASTILLO MAGAN, Noemi	Veterinary	PhD/Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
DEL MORAL CAMPO, Ana	Veterinary	Specialist	1	Clinical training	
DEL RÍO LORENZO, Alba	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
DEL RY , Federica	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
DELGADO BONET, Pablo	Veterinary	PhD student	0,5	Lectures/Seminars/Labs	Basic Subject
DELGADO FERNÁNDEZ, Emma	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
DIEZ VAZQUEZ, María	Veterinary	Practitioner	0,5	Clinical training	
DIEZ-MADROÑERO NAVALPOTRO, Álvaro	Veterinary	Intern	0,3	Clinical training	
DOBLAS AGUILAR, Andrés	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
DOMÍNGUEZ RUÍZ, Marina	Veterinary	Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
DUQUE MORENO, Rubén	Veterinary	Practitioner	0,5	Clinical training	
ESNAOLA ALCON, Alaia	Veterinary	Resident	0,5	Clinical training	
ESTEBAN REVILLA, Eutiquio	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
FERNÁNDEZ CONTRERAS, María Encarnación	Biologist	PhD	0,5	Lectures/Seminars/Labs	Animal Production
FERNÁNDEZ GIRIBETS, Cristina	Veterinary	Practitioner	0,5	Clinical training	
FERNANDEZ MOREIRA, Daniel	Veterinary	PhD	1	Lectures/Seminars/Labs	Animal Production
FERNÁNDEZ PATO, Nelida	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
FERNÁNDEZ RODRÍGUEZ, Mª Carmen	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
GALÁN ELVIRA, Jaime	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Subject
GÁLVEZ ALONSO, María Dolores	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Animal Production
GÁLVEZ CASTILLO, Dolores Maria	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
GAMINO RODRÍGUEZ, Virginia	Veterinary	PhD/Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
GARCÍA CASTRO, Javier	Biologist	PhD	0,5	Research	Clinical Sciences
GARCÍA DE DIEGO, Álvaro	Veterinary	Intern	0,3	Clinical training	
GARCÍA GARCÍA, Marta Beatriz	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	1	Lectures/Seminars/Labs	Basic Science
GARCÍA GARCÍA, Yolanda	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GARCÍA SANCET, María de los Ángeles	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GARCÍA-ATANCE FATJÓ, María Asunción	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Animal Production
GARCÍA-OCHOA DORADO, Silvestre	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
GÓMEZ BARRERO, Susana	Biologist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GÓMEZ JUÁREZ, Ángel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
GÓMEZ LUCAS, Raquel	Veterinary	PhD/Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
GÓMEZ PEINADO, Antonio	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
GÓMEZ RODRÍGUEZ, Elisa	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Animal Production
GÓMEZ RUEDA, Laura	Veterinary	Practitioner	0,5	Clinical training	
GÓMEZ VADILLO, María del Rosario	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GONZÁLEZ CRIADO, Raquel	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
GONZALEZ HERNANDEZ, Ana	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
GONZÁLEZ HERNÁNDEZ, Ana	Veterinary	Practitioner	0,5	Clinical training	
GONZÁLEZ LÓPEZ, Laura	Biologist	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
GONZÁLEZ ROSALES, Alfredo	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	1	Lectures/Seminars/Labs	Basic Subject
GRAGERA ALÍA, Teresa	Pharmacologist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GUERRERO MONJO, Sandra	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
GUERVÓS SÁNCHEZ, Esther	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
GURRÍA GARCÍA, Eduardo	Engineer (data, agricultural or informatic systems)	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
GUTIÉRREZ PÉREZ, María José	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
HERNÁNDEZ MARTÍNEZ, Leticia	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Clinical Sciences
HERRERA PECO, Ivan	Biologist	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
HERRERO IGLESIAS, Alicia Cristina	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Animal Production
HIGUERA PASCUAL, Miguel Ángel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Animal Production
HORMIGOS PALOMO, Antonio	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
HUERTAS VEGA, Victor Manuel	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Animal Production
IGLESIAS GÓMEZ, Laura María	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
IGLESIAS JIMÉNEZ, Eduardo	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
IVORRA ALBEROLA, Beatriz	Veterinary	Intern	0,3	Clinical training	
JORGE CASADO, Débora	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
LAGUNA SANZ, Fernando	Veterinary	Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
LARRINAGA PÉREZ, Julia	Veterinary	Intern	0,3	Clinical training	
LÓPEZ GALLIFA, Raúl	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
LÓPEZ PORTILLO, Haday	Engineer (agricultural, physics , chemistry,data or informatic systems)	Academic staff	0,5	Lectures/Seminars/Labs	Basic Subject
LÓPEZ RODRÍGUEZ, Juan	Veterinary	PhD student	1	Lectures/Seminars/Labs	Basic Science
LÓPEZ SEBASTIÁN, Antonio	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
LÓPEZ TOMÁS, Luis Ángel	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
LÓPEZ-CASAMAYOR JUSTICIA, Eloisa	Pharmacologist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
LOZANO BENITO, Diego	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
LUQUE MENGÍBAR, Ruth	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
MALLEBRERA PISA, Ignacio	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
MARAÑÓN PARDILLO, Gonzalo	Veterinary	Academic staff	1	Clinical training	Clinical Sciences
MARCACCINI , Andrés	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
MARÍN-BALDO VINK, Alexandra	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
MÁRQUEZ SOPEÑA, Luis	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
MARTÍ ANGULO, Simón	Veterinary	PhD/Specialist	1	Lectures/Seminars/Labs	Clinical Sciences
MARTÍN BLANCO, Belén	Veterinary	Intern	0,3	Clinical training	
MARTÍN CARRASCO, Clara	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
MARTÍN DE SANTIAGO, Cristina	Veterinary	Practitioner	0,5	Clinical training	
MARTÍN MENÉNDEZ, Inés	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
MARTÍN PALOMINO, Pedro	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
MARTÍN SÁNCHEZ-CANTALEJO, Yolanda	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
MARTÍNEZ MARTÍNEZ, Alba	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
MARTÍNEZ MORÁN, José Luis	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
MARTÍNEZ RUIZ, Manuel	Veterinary	Practitioner	0,5	Clinical training	
MATANZAS TABOADA, Nuria	Veterinary	Intern	0,3	Clinical training	
MATAS MÉNDEZ, Pablo	Veterinary	PhD student	0,5	Lectures/Seminars/Labs	Clinical Sciences
MATEO BARRIENTOS, Marta	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
MATEO PAMPLIEGA, Isidro	Veterinary	Diplomate	1	Clinical training	Clinical Sciences
MÉNDEZ BARBERO, Susana	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
MENÉNDEZ MILANÉS, Higinio Francisco	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	1	Lectures/Seminars/Labs	Basic Subject
MERCHÁN FORNELINO, Manuel	Biologist	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
MERINO GARCÍA, Julio	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
MOGEDAS MORENO, María	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
MOLINA ARJONA, Fernando	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
MONGE VEGA, Alfonso	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
MONROIG CARBONELL, Miquel	Veterinary	Practitioner	0,5	Clinical training	
MORALES PÉREZ, Javier	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
MORENO LÓPEZ, Marcos	Veterinary	PhD student	1	Lectures/Seminars/Labs	Clinical Sciences
MUÑOZ BLANCO, Lorena	Veterinary	Specialist	1	Lectures/Seminars/Labs	Clinical Sciences
MUÑOZ CARDONA, Alvaro Ignacio	Veterinary	Academic staff	0,5	Clinical training	Animal Production
MUÑOZ GÓMEZ, Gregorio	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Science
MUÑOZ HERNANDEZ, Fernando	Veterinary	Resident	0,5	Clinical training	
NAVARRO ESPÍN, María Isabel	Veterinary	Intern	0,3	Clinical training	
NAVARRO MARTÍN, Isaac	Biologist	Academic staff	0,5	Clinical training	Animal Production
NIETO MORENO, Jesús	Veterinary	Intern	0,3	Clinical training	
NÚÑEZ JARÁIZ, Julián	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
NÚÑEZ LÓPEZ, Emilio	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
ORERA LÓPEZ, Miguel Ángel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Subject
PACHECO CASTRO, Alberto	Biologist	PhD	0,5	Lectures/Seminars/Labs	Basic Science

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
PANTRIGO CLEMENTE, Jesus Manuel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Basic Science
PARELLADA ESQUIUIS, Nura	Veterinary	Intern	0,3	Clinical training	
PARRA PECHARROMAN, David	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Animal Production
PEDRERA MAZARRO, Miriam de las Mercedes	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
PELÁEZ GUERRA, Miguel Angel	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
PENELO HIDALGO, Silvia	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
PEREIRA IGLESIAS, Lucía	Veterinary	Resident	0,5	Clinical training	
PÉREZ ARELLANO, Esther	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	1	Lectures/Seminars/Labs	Basic Science
PÉREZ DE TENA BRAVO, Alba Isabel	Veterinary	Intern	0,3	Clinical training	
PERISÉ BARRIOS, Ana Judith	Veterinary	PhD	1	Research	Basic Science
PERLADO CHAMIZO, María del Rosario	Pharmacologist	Academic staff	1	Clinical training	Clinical Sciences
PINTO GONZÁLEZ, Agustín	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
PRIETO PERSIGUERO, José Antonio	Engineer (agricultural, physics , chemistry,data or informatic systems)	Academic staff	1	Lectures/Seminars/Labs	Basic Subject
RAMOS POZO, Javier	Veterinary	Resident	0,5	Clinical training	
REBOLLADA MERINO, Agustín Miguel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
RECIO PÉREZ, Mª Teresa	Veterinary	Specialist	1	Clinical training	
REDONDO MORCUENDE, Jesus	Veterinary	Academic staff	0,5	Clinical training	Clinical Sciences
REICHARDT MOYA, Susana	Engineer (agricultural, physics , chemistry,data or informatic systems)	PhD	0,5	Lectures/Seminars/Labs	Basic Subject
REQUENA MALTRANA, Manuel	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
RIPA LÓPEZ-BARRANTES, Adriana	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
ROBLEDO MONTERO, Cristina	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
RODRÍGUEZ BLANCO, Antonio	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
RODRÍGUEZ HURTADO, Isabel	Veterinary	PhD/Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
RODRÍGUEZ LUIS, Adriana Carolina	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
RODRÍGUEZ MONTESINOS, Adolfo	Veterinary	PhD	1	Lectures/Seminars/Labs	Animal Production

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
RODRÍGUEZ-MARÍN ROY, José Luis	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
RUIZ CASTILLO, José Luis	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
SALAZAR NUSSIO, Verónica	Veterinary	PhD/Diplomate	1	Lectures/Seminars/Labs	Clinical Sciences
SÁNCHEZ CORDÓN, Pedro José	Veterinary	PhD	0,5	Lectures/Seminars/Labs	Basic Science
SÁNCHEZ DÍAZ, Agustina	Pharmacologist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
SÁNCHEZ FERNÁNDEZ, Juan	Veterinary	Intern	0,3	Clinical training	
SÁNCHEZ JUNCO, Nuria	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
SÁNCHEZ LÓPEZ, Lucía	Veterinary	Resident	0,5	Clinical training	
SÁNCHEZ SÁNCHEZ, Jorge	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Basic Science
SÁNCHEZ SÁNCHEZ, María	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
SÁNCHEZ SÁNCHEZ-VIZCAÍNO, María Alicia	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
SÁNCHEZ-MELLADO CIENFUEGOS-JOVELLANOS, Covadonga	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
SANTAMARÍA RAMIRO, Mónica	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science
SARDÓN RUIZ, David	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
SAURA ALFONSEDA, José María	Veterinary	Academic staff	1	Clinical training	Basic Science
SERRANO ORTIGOSA, Francisco Manuel	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
SUAREZ DE PEON PORTILLO, Marta	Veterinary	Resident	0,5	Clinical training	
TORREA VALDEPÉREZ, Pablo	Veterinary	Academic staff	0,5	Lectures/Seminars/Labs	Clinical Sciences
TRIGO GARCÍA, Maria Soledad	Veterinary	PhD student	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
TURRIENTES LÓPEZ, María Carmen	Biologist	PhD	1	Lectures/Seminars/Labs	Basic Science
ULECIA ZALDIVAR, Juan Carlos	Veterinary	Academic staff	1	Clinical training	Clinical Sciences
VALBUENA HERNÁNDEZ, Natalia	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
VALERO DÍAZ, Isabel	Veterinary	Resident	0,5	Clinical training	
VARELA DE SEIJAS SAPIA, Mónica	Biochemist	PhD	0,5	Lectures/Seminars/Labs	Basic Science

Academic Staff	Qualifications		FTE	Teaching responsibilities	Area/Departament
VÁZQUEZ FERNÁNDEZ, Fernando Aníbal	Veterinary	PhD	1	Lectures/Seminars/Labs	Clinical Sciences
VÁZQUEZ GOYOAGA, Álvaro	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
VÁZQUEZ MOLINERO, Ramón	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Science
VERGARA ALARCON, Priscilla	Engineer (agricultural, physics , chemistry,data or informatic systems)	Academic staff	0,5	Lectures/Seminars/Labs	Basic Subject
VILLAGRASA HIJAR, Manuel	Veterinary	Academic staff	1	Lectures/Seminars/Labs	Clinical Sciences
VILLALUENGA BESAYA, José Luis	Biologist	Academic staff	0,5	Lectures/Seminars/Labs	Animal Production
YÁÑEZ CONDE, Esther	Biochemist	PhD	1	Lectures/Seminars/Labs	Basic Science
YUNTA GONZÁLEZ, Mónica	Biochemist	PhD	1	Lectures/Seminars/Labs	Basic Science
ZAMORA BENITO, Alberto Manuel	Veterinary	PhD	1	Lectures/Seminars/Labs	Food Safety and Quality, Veterinary Public Health and One Health Concept
ZARAGOZA CUESTA, Félix	Veterinary	PhD	1	Lectures/Seminars/Labs	Basic Subject

Appendix 2. Units of study of the core veterinary programme

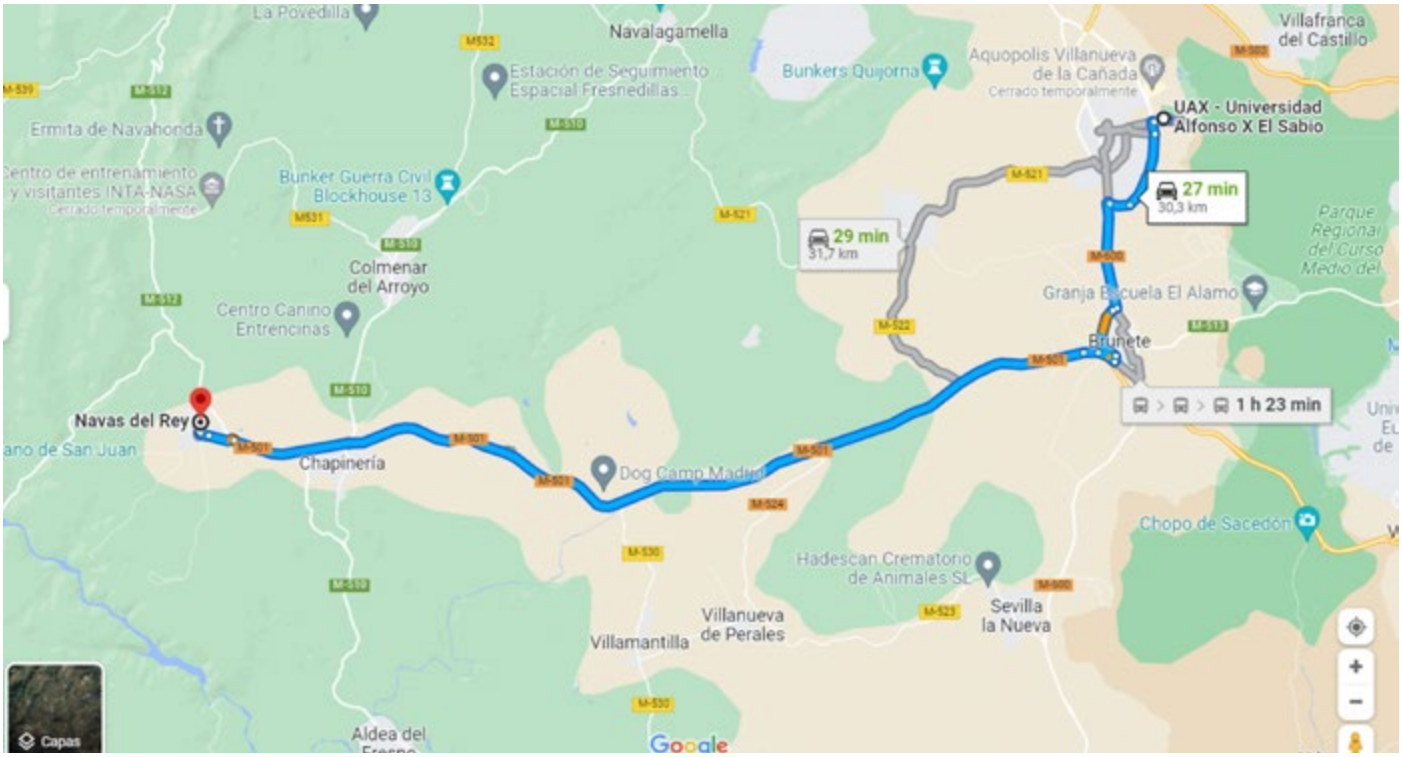
Title	Reference Number	ECTS value	Year of programme	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Compulsory/ Elective
Anatomía Animal	170101	15	1	7,5	7,5									Compulsory
Biología	170102	7	1	3,5	3,5									Compulsory
Bioquímica	170103	6	1	3	3									Compulsory
Física y Química para Veterinarios	170104	6	1	3	3									Compulsory
Histología	170105	8	1	4	4									Compulsory
Informática	170106	6	1	3	3									Compulsory
Estadística	170107	6	1	6										Compulsory
Genética	170108	6	1		6									Compulsory
Fisiología	270101	12	2			6	6							Compulsory
Microbiología	270102	7	2			3,5	3,5							Compulsory
Agricultura	270103	4	2			4								Compulsory
Deontología, Medicina Legal y Legislación Veterinaria	270104	3	2			3								Compulsory
Epidemiología	270105	3	2			3								Compulsory
Inmunología	270106	3	2			3								Compulsory
Nutrición I	270107	3	2			3								Compulsory
Parasitología	270108	4,5	2			4,5								Compulsory
Anatomía Patológia General	270109	3,5	2				3,5							Compulsory
Etnología y Gestión Empresarial en Ámbito Veterinario	270110	6	2				6							Compulsory
Farmacología I	270111	5	2				5							Compulsory
Fisiopatología	270112	6	2				6							Compulsory
Anatomía Patológica Especial	370101	9	3					4,5	4,5					Compulsory
Cría	370102	7	3					3,5	3,5					Compulsory
Enfermedades Parasitarias	370103	9	3					4,5	4,5					Compulsory
Producción Animal	370104	12	3					6	6					Compulsory
Farmacología II	370105	5	3					5						Compulsory
Toxicología	370106	6	3					6						Compulsory
Nutrición II	370107	4	3						4					Compulsory
Propedéutica	370108	5	3						5					Compulsory
Animales Experimentación	370131	3	3						3					Elective
Historia de la Veterinaria	370132	3	3						3					Elective
Ictiopatología	370133	3	3						3					Elective
Exóticos	370134	3	3						3					Elective
Patología Médica y de la Nutrición	470101	12	4							6	6			Compulsory
Enfermedades Infecciosas	470102	12	4							6	6			Compulsory
Patología Quirúrgica y Cirugía	470103	12	4							6	6			Compulsory
Tecnología de los Alimentos	470104	9	4							4,5	4,5			Compulsory
Anestesiología	470105	4,5	4							4,5				Compulsory
Zoonosis	470106	3	4							3				Compulsory

Title	Reference Number	ECTS value	Year of programme	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Compulsory/ Elective
Diagnóstico por la Imagen	470107	4,5	4								4,5			Compulsory
Medicina Preventiva	470108	3	4								3			Compulsory
Higiene	570101	12	5									6	6	Compulsory
Obstetricia y Patología de la Reproducción	570102	12	5									6	6	Compulsory
Prácticas Tuteladas	570103	24	5									12	12	Compulsory
Seguridad Alimentaria	570104	3	5									3		Compulsory
Odontología	570131	3	5									3		Elective
Oftalmología	570132	3	5									3		Elective
Urgencias y Cuidados	570134	3	5									3		Elective
Microbiología Alimentos	570135	3	5									3		Elective
Trabajo de Fin de Grado	570105	6	5										6	Compulsory

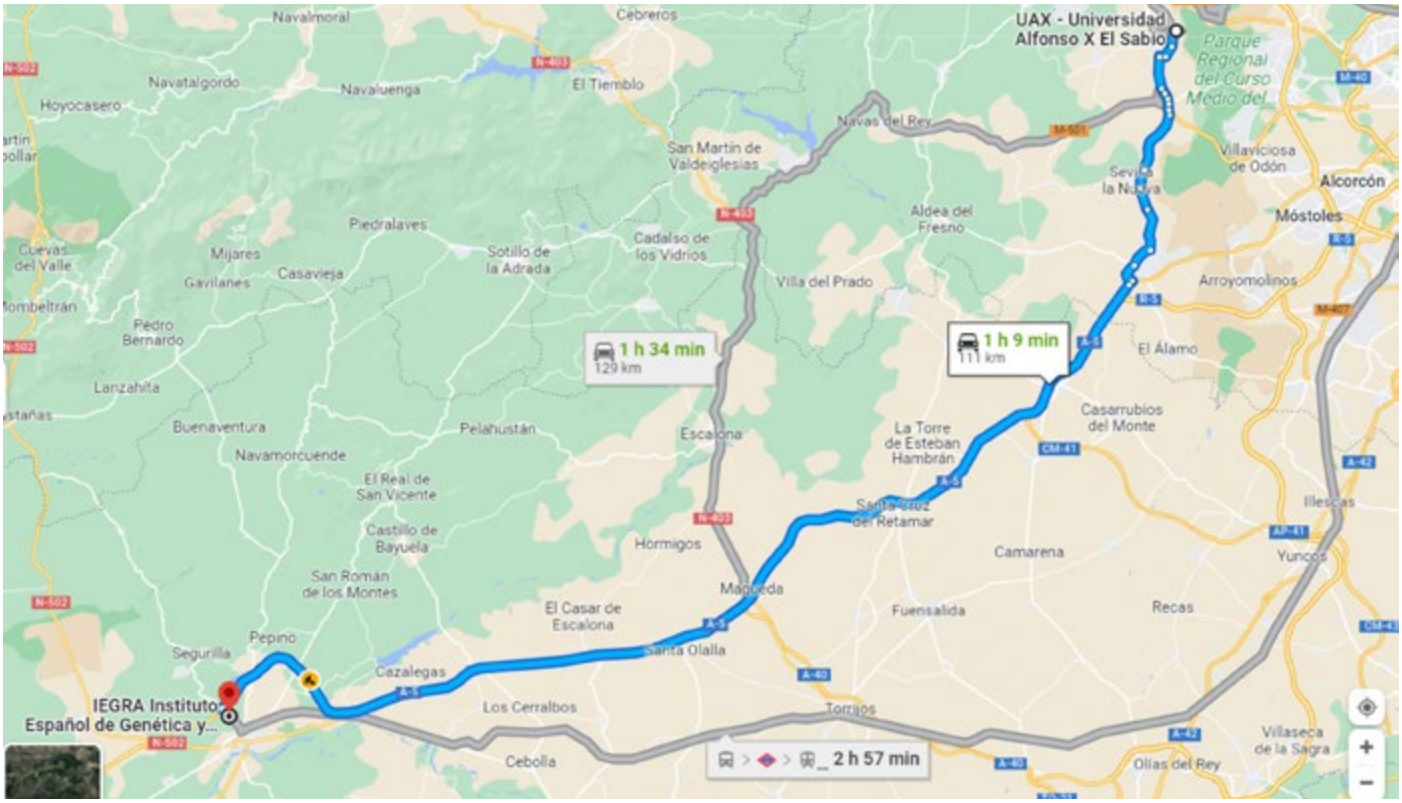
Appendix 3. Maps of the VEE and the intra-mural and extra-mural facilities used in the core veterinary programme

VF

EXTRA-MURAL FACILITIES. Teaching Farm NAVAS DEL REY



EXTRA-MURAL FACILITIES. Teaching Farm IEGRA



Appendix 4. Written assessment procedures for QA and process included in our Quality Assurance System

To reach the academic excellence, VF seeks to maintain and improve the quality of its services. This is made possible by a series of mechanisms designated to ensure that information and decisions at different levels of the organization are aligned with the same purpose, and reviewed as often as needed to respond to changes in the environment. Also, the performance of the VF is aligned with the Quality Policy of the UAX University and other areas and departments of the organization.

The Quality Assurance System (SG&C) is the framework through the VF undertakes a commitment to excellence in the education of its students through the continuous improvement of all its process. The first version of the SG&C was achieved in 2004 under the ISO 9001:2015 recognition, and since then it has been periodically reviewed with the participation of the different stakeholders (students, academics, assistance personnel, graduated and employers).

Since 2021, the SG&C has been reviewed in order to introduce the SISCAL standards deployed by the Autonomic Quality Agency (Fundación para el Conocimiento Madri+d) following the European Standard Guidelines (ESG), the Royal Decree 640/2021 estipulations for the creation, recognition and authorization of universities and Schools, and institutional accreditation of university centers, and the Royal Decree 822/2021 estipulations, which establishes the organization of university education and the quality assurance procedure.

The SG&C is represented by a process map where there are identified the strategic, key and support processes:

1. Strategic processes: Those related to the strategic plan, quality policy, compliance, innovation of academic offer and analysis of satisfaction and recommendation.

2. Key processes: Those related to the admission of students, planification, learning experience, research, student support and improvement.

3. Support processes: Administrative office, human resources, technology, economic area and maintenance department.

The deployment of these processes is specified in a series of SG&C procedures that describe how to operate in different areas of the University and specifically in VF.

To ensure a systematic assessment of the processes and the launch of action plans that will improve the VF performance, the SG&C System includes various committees that act a different level of the organization:

- **Subject follow up meeting:** The aim of this meeting is to ensure that every professor of the same subject, firstly knows the requirements content in the degree report approved by the Ministry of Education, and secondly, are coordinated to ensure that the students of different groups are going to develop the same learning outcomes. After the meeting, a report is drawn up by the subject coordinator. The report reflects changes made in the academic year, the results of the students and the development of the teaching activity, making a reflection on the already established processes, the new ones incorporated and a proposal for changes is made based on the

development of the academic year. The points to be discussed are established using a model provided by the university.

- **Faculty meetings:** The reports of the Evaluation Board meetings include issues related to teaching coordination, the development of the academic year and the exams up to that moment, if it is necessary to make modifications to the grades and those relevant issues to be discussed with the coordinators that Dean deems appropriate. The official dates and the model are provided by the university, with two ordinary calls (February and May-June) and one extraordinary (July). If it is necessary, extraordinary coordination meetings are held by year of the programme or by area, in these cases a report is also generated.

- **Monitoring and Improvement Committee (SIM) of the degree:** The sessions of the Monitoring and Improvement Committee (SIM) of the degree, include teachers, students and members of the staff and the quality coordinator of the VF, are held three times per year. The first is held in November to deal with the beginning of the academic year, the follow-up meeting is held in March to evaluate the performance of the degree, and in the final meeting, carried out in June, includes activities developed during the academic year. The agenda of each meeting is shared in advance in order to analyze the information (performance indicators, satisfaction and recommendation items of surveys and complaints or suggestions) that should be discussed in the meeting. Each meeting generates improvement actions that are incorporated into the Action plan of the degree. At the end of the academic year, a final report is produced that incorporates critical points and improvement actions for the following academic year.

- **Faculty Board meetings:** The Dean meets monthly with the Faculty Board. The aim of this meeting is to discuss the implementation of the School Action plan and those relevant points of the degree that need to be shared by the academic staff. In these meetings, the Dean analyses the implementation of the Action plan through the actions taken in the different degrees. The agenda and the tasks to be carried out are established by the Dean.

External Evaluation of the Quality Assurance Process:

The objectivity of the internal program review (SIM) is guaranteed by the implementation of internal audits for each degree and an external evaluation process stipulated by the Spanish Ministry of Education. This consists of an external assessment process for each degree programs after its implementation, consisting in a follow-up 3 years after the initial verification, and the renewal of accreditation (ex-post accreditation) 8 years after verification or the latest renewal of accreditation.

As an example, we attached some of the process included in our Quality Assurance System:

- PE06.02 Stakeholder satisfaction and analysis.
- PO03.04 Academic Coordination.
- PC06.01 Monitoring and Improvement Committee (SIM).
- PC06.02 External Evaluation.

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PO06.01
	Date of approval: 14/12/2022
MANAGEMENT OF FOLLOW-UP AND IMPROVEMENT COMMITTEES (SIM)	Version: 1.0

NECESSARY RESOURCES AND REQUIREMENTS

NECESSARY RESOURCES	
Material Resources (Which material elements are needed for the completion of the process?).	**Human Resources** (Which people are needed for the completion of the process?).
Office supplies and the Internet.	Responsible for the Quality Management System.
	Quality Coordinator.
	Academic Head of permanent education programmes.

NECESSARY RESOURCES			
Suppliers (Which department delivers?).	**Input Elements** (What do they deliver?).	**Output Elements** (Which is the completion of the process?).	**Addressees** (Who receives it?).
Executive Committee.	Risk assessment and registration.	Action plan.	Area Managers.
Vice-Rectorate for Studies and Quality	SIM meeting schedule	SIM Minutes Follow-up reports	Heads of Degree Programme

PROCESS DEPLOYMENT

BRIEF DESCRIPTION OF THE PROCEDURE

SUB-PROCESS (Sub-process name):	**Management of Follow-up and Improvement Committees (SIM)**	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
Constitution of the SIM Committees (Degree Programme Follow-up and Improvement Group). Executive Committee, Vice-Rector's Office for Studies and Quality, Heads of Centres, Centres' Quality Coordinators.	There are three types of SIM Committees: • Level 1: SIM Committees for official degrees and permanent education (SIM-T). • Level 2: Centre SIM Committees and/or Centre Board (SIM-C). • Level 3: University SIM Committees, Governing Council and Executive Committee (SIM-U). All committees shall have a chairperson and a secretariat; the rest of the people shall be board members, all of whom shall have voice and vote in the meetings of the committees. The members of the committees differ according to the level of the committee; thus, the minimum members shall be: • SIM-T: Directorate/Head of Studies (chair of the committee), Quality Coordinator (secretary of the committee), 1 representative of the Administration and Services Staff (laboratory technician, secretary of the Centre, etc.), at least 1 representative of the Teaching and Research Staff (PDI), 1 student. In addition, any person responsible for the topics to be discussed may be invited. • SIM-C: Dean's Office/Directorship (chair of the committee), Quality Coordinator (secretary of the committee), Directorate/Head of Studies, Quality Manager (Vice-Rector's Office for Studies and Quality), 1 student and 1 representative of the marketing and communication area. In addition, any person responsible for the topics to be discussed may be invited. • SIM-U: Chief Executive Officer, the Rector's Office, Directors of each corporate area and the Vice-Rector's Office for Studies and Quality (acting as secretary of the committee). In addition, any person responsible for the topics to be discussed may be invited. The non-academic areas (people, marketing, etc.) will hold their area SIM meetings prior to the SIM-U meetings in order for each responsible head to obtain the necessary analysis information for the SIM-U meeting.	Appointments of members made by the Rector's Office.

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SIM Committees meetings.	The SIM Committees shall meet at least three times a year according to the meeting schedule set out at the beginning of the academic year by the Vice-Rectorate for Studies and Quality. • SIM-T: It shall meet in order to follow-up on the degree including performance data, satisfaction, etc. and the defined action plan. • SIM-C: It shall meet after all Centre SIM-T meetings have been held. The objective is to have a global vision of what is happening in each degree programme belonging to the centre, including data on satisfaction, academic performance, etc., and to follow up on the centre's action plan. • SIM-U: It shall meet once the SIM-C meetings have been held. The objective is to effectively follow up on the degree programmes, performance and satisfaction data and the Action Plan and Initiatives.	SIM meeting schedule. Agenda and Minutes of SIM meetings. Updated Action Plan / Initiatives.
Holding of SIM Committees Chairpersons, Secretariats and Board Members of SIM Committees.	The SIM Committees are the reflection tool defined in UAX' SGIC which shall allow analysis and decision making. In order for the reflection to be effective, it is necessary to always have an agenda and the documentation to be analysed at least 2 days in advance so that each of the members can analyse it and thus generate, during the session, the necessary dialogue and reflection. The conclusions of the SIM Committees shall be reflected in the Minutes and in the corresponding Action Plan, if necessary. NOTE: At the end of the academic year, the SIM-T of each degree programme shall include a final degree programme report that shall include the main topics dealt with in the SIM-T. Information for analysis: • Performance: Dashboard of indicators. • Satisfaction: Medallia. • Claims, complaints, suggestions and compliments. • Degree report. • Reports of audits, assessments, etc. SIM-T Committees shall be a source of information for the SIM-C Committees, which in turn shall be a source of information for the SIM-U Committee. Agenda and Minutes of SIM meetings. Updated Action Plan / Initiatives.	Agenda and Minutes of SIM meetings Updated Action Plan / Initiatives.
Analysis of results Vice-Rectorate for Studies and Quality.	At the end of the year, the level of compliance with the committed action plan and its impact on the completion of the University's strategic plan shall be assessed. This information will be part of the management review of the Management System (see Management Review process).	Action plan Degree programme report Management review report.

RISKS. SUB-PROCESS CONTROL POINTS AND ACTIVITIES

RISKS (What can happen so that the process does not develop properly?)	CONTROL POINTS AND ACTIVITIES (What can we do to avoid the risk?)
Little involvement of the Quality Coordinators or Chairpersons of SIM Committees.	Execution control from the Vice-Rectorate for Studies and Quality.
Not having the necessary data for the reflection to be carried out in the SIM meetings or in the degree programme follow-up and/or accreditation renewal reports.	Control the data extraction process.

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PO06.01
	Date of approval: 14/12/2022
MANAGEMENT OF FOLLOW-UP AND IMPROVEMENT COMMITTEES (SIM)	Version: 1.0

RECORDS AND RELATED DOCUMENTS

RECORDS
(Summary of the records included in the description of the activities)

Code To be filled by Quality	Register
	SIM Agenda.
	SIM meeting minutes.
	Self-report of follow-up/renewal of accreditation.
	Allegations to the follow-up reports/renewal of accreditation.
	Mandatory favourable reports for prepared Master's Degrees in Permanent Education.
OTHER INFO. OF INTEREST:	

PROCESSES, RECORDS / FORMS AND RELATED INTERNAL DOCUMENTS
(Other records that are required to be kept and that belong to other processes)

Code To be filled by Quality	Register
	Management review report.
	Identification of risks and opportunities.
	Accreditation Renewal Guide.
	Degree Programme Follow-up Guide.
	Interim accreditation follow-up or renewal report.
	Final accreditation follow-up or renewal report.

RELATED EXTERNAL DOCUMENTS
(Regulations, applicable legislation, etc.)

Register
ISO 9001:2015 Standard.
SISCAL Guide.
Rules of operation of the SIM Committees.
Regulation on the follow-up of own degrees.

RESULTS, ASSESSMENT AND REVIEW OF THE PROCESS

PROCESS MEASUREMENT: INDICATORS

Indicator no. To be filled by Quality	Indicator type				Indicator name and description	Quality Standard (Acceptance threshold)	Frequency of measurement (If annual, specify month. Avoid annual term when possible)	Verification source (Where can you go to check this indicator?)	Who provides it (Process head; GEA; T&T, etc.)
	S	P	PR	C					
1		X			SIM meetings held in a timely manner.	80%	Annual (July).	SIM Minutes.	VR for Studies and Quality Quality Coordinators.

S: Satisfaction or perception. **P:** Performance or result: Results of the process. **K:** Key or linked to the strategic plan.
PR: Predictive: Associated with risks. Measurements that help me predict the risk of process compliance.

PROCESS VALIDATION To be filled by Quality

WRITES	REVIEWS	APPROVES
Quality Manager.	Vice-Rectorate for Studies and Quality.	UAX Rectorate.

CHANGE HISTORY

REVIEW	DATE	CHANGES
01	14/12/2022	Initial editing of the document.

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PO06.01
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MANAGEMENT OF FOLLOW-UP AND IMPROVEMENT COMMITTEES (SIM)	Version: 1.0

ANNEX: FLOW CHART

FLOW CHART To be filled by Quality

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PC06.02
	Date of approval: 14/12/2022
CONTINUAL IMPROVEMENT MANAGEMENT PROCESS	Version: 1.0

EXPECTED RESULTS AND PROCESS APPROACH

IDENTIFICATION DATA AND PROCESS DESCRIPTION

MACRO-PROCESS (According to the organisation's process map)	PC06 LEARNING AND CONTINUAL IMPROVEMENT
PROCESS	PC06.02 CONTINUAL IMPROVEMENT MANAGEMENT
SUB-PROCESSES	
RESPONSIBLE (Include responsible Department)	Vice-Rectorate for Studies and Quality.

OVERALL OBJECTIVE OF THE PROCESS	Establish the system for carrying out the assessment processes related to the follow-up and renewal of the accreditation of the degree programmes in order to learn and improve both the process and the degrees.

OPERATIONAL OBJECTIVES OF THE PROCESS OR EXPECTED RESULTS		**ALIGNMENT WITH ODS** To be filled by Quality		**ALIGNMENT WITH THE STRATEGIC PLAN** To be filled by Quality	
NO.	**Description of the objective/expected result of the process**	**NO.**	**Sustainable Development Objective**	**NO.**	**Related Strategic Plan Objective**
1	Define the guidelines to be followed when dealing with the external assessment processes related to the follow-up and renewal of accreditation of degree programmes		To be filled by Quality .		To be filled by Quality.

STAKEHOLDERS	**EXPECTATIONS AND NEEDS** (Why is it important to the stakeholder/How does it benefit the stakeholder?)	**FOLLOW-UP SYSTEM** (What control system/indicators will be used to ensure compliance? Example: Satisfaction surveys / No. of publications)
Teaching and Research Staff (PDI).	Guarantee the quality and permanence of degree programmes.	SIM Minutes.
Administration and Services Staff (PAS).	Guarantee the quality and permanence of degree programmes.	SIM Minutes.
Students.	Guarantee the quality and permanence of degree programmes.	SIM Minutes.

NECESSARY RESOURCES AND REQUIREMENTS

NECESSARY RESOURCES	
Material Resources (Which material elements are needed for the completion of the process?)	**Human Resources** (Which people are needed for the completion of the process?)
Office supplies and the Internet	Vice-Rectorate for Studies and Quality Staff
"SPSS" Statistical software	Academic head of degree programmes
	Quality Coordinator
	Degree programme work team

NECESSARY RESOURCES			
Suppliers (Which department delivers?)	**Input Elements** (What do they deliver?)	**Output Elements** (Which is the completion of the process?)	**Addressees** (Who receives it?)
Assessment agency	Assessment schedule Assessment report	Self-assessment report + evidences + Improvement plan	Heads of Degree Programme Assessment agency
Vice-Rectorate for Studies and Quality	Need for external assessment of degree programmes (official or otherwise)	Self-assessment report + evidences + Improvement plan	Heads of Degree Programme Assessment agency
Assessment agency	Madrimasd Foundation e-mail	Self-assessment report and evidences	Assessment agency

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PC06.02
	Date of approval: 14/12/2022
CONTINUAL IMPROVEMENT MANAGEMENT PROCESS	Version: 1.0

PROCESS DEPLOYMENT

BRIEF DESCRIPTION OF THE PROCEDURE

SUB-PROCESS (Sub-process name):	**Management of Follow-up and Improvement Committees (SIM)**	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
	The accreditation renewal process is an external and compulsory assessment process for official university degrees and occurs for each degree within a maximum period of 6 years for degrees of 240 ECTS, University Master and Doctorate, and 8 years for degrees of 300 or 360 ECTS, from the date of the beginning of the delivery or the renewal of the previous accreditation. The follow-up process is a mandatory process. There are 2 types of follow-ups, Ordinary and Special: • Regular follow-up: ▶ Regular follow-up after verification: Mandatory after 3 years of implementation of the degree programme. An account shall be given of how the Foundation's approved program has been implemented. ▶ Regular follow-up after renewal of accreditation: 3 years after the renewal of accreditation. It shall be mandatory in the case of a non-conformity (necessary modification) in the accreditation renewal and voluntary in all other cases. • Special follow-up: ▶ One year after the Verification/Modification or Renewal of Accreditation has been carried out, only in the event that a non-conformity or necessary modification has been detected in the Verification/Modification or Renewal of Accreditation processes.	
Organisation of the working group. Vice-Rectorate for Studies and Quality, Head of Degree Programs and Quality Coordinator.	The working group for the creation of the self-report and the corresponding evidences shall include at least one member of the Vice-Rectorate for Studies and Quality and the person responsible for the degree programme. In addition, other persons may join as deemed appropriate for the development of the process. The progress of the report and the collection of evidences shall be reported at the relevant SIM meetings.	
Report creation Working group	The working group shall compile the relevant information according to the guides published by the Assessment Agency (Follow-up Guide and Accreditation Renewal Guide) in order to draft the report, compile the evidences that will support the report and review the public information provided on the degree programme.	Follow-up report and/or renewal of accreditation. Improvement plan (if applicable). Evidences of the report. Updated website. Accreditation Renewal Guide. Degree Programme Follow-up Guide.
Dissemination and archiving of the report. Head of the Degree Programme and Vice-Rectorate for Studies and Quality.	Once the assessment report (follow-up and/or renewal of accreditation) has been completed, it will be sent to the Assessment Agency for review and analysis. In addition, it shall be filed in the document repository established for this purpose.	Archived reports.

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Preparation for the Renewal of Accreditation Visit. Vice-Rectorate for Studies and Quality, Head of the Degree Programme and Quality Coordinator.	In the event that the process of Renewal of Accreditation involves a visit to the institution, this shall be prepared jointly by the Quality Coordinator, the Head of the Degree Programme and a quality manager of the Vice-Rectorate for Studies and Quality, with the participation of any other person deemed necessary.	Technical instruction for the preparation of the Accreditation Renewal visit.
Response to the assessment report Working group.	Once the documentation requested in the guide has been sent and, if applicable, the visit has been received, the Assessment Agency shall send the interim report with the result of the assessment. This report is shared with the centre managers and the working group. Where appropriate, 20 working days are established for the University to make allegations and to submit an improvement plan in the event of having received an assessment with necessary modifications. Finally, the Agency will issue the final report, which will be shared with the centre manager and the working group. In addition, the result of the assessment will be reflected in the master's degree programme table.	Report on the response to the received reports. Improvement plan. Master's degree programme table.

RISKS. SUB-PROCESS CONTROL POINTS AND ACTIVITIES

RISKS (What can happen so that the process does not develop properly?)	CONTROL POINTS AND ACTIVITIES (What can we do to avoid the risk?)
Little involvement of the Head of the degree programme or the work team.	Execution control from the Vice-Rectorate for Studies and Quality.
Not having the necessary data for the reflection to be carried out in the degree programme follow-up and/or accreditation renewal reports.	Control the data extraction process.

RECORDS AND RELATED DOCUMENTS

RECORDS (Summary of the records included in the description of the activities)

Code To be filled by Quality	Register
	Self-report of follow-up/renewal of accreditation.
	Allegations to the follow-up reports/renewal of accreditation.
	Updated website

PROCESSES, RECORDS / FORMS AND RELATED INTERNAL DOCUMENTS (Other records that are required to be kept and that belong to other processes)

Code To be filled by Quality	Register
	Accreditation Renewal Guide.
	Degree Programme Follow-up Guide.
	Interim accreditation follow-up or renewal report.
	Final accreditation follow-up or renewal report.

RELATED EXTERNAL DOCUMENTS (Regulations, applicable legislation, etc.)

Register
ISO 9001:2015 Standard.
SISCAL Guide.
Rules of operation of the SIM Committees.
Regulation on the follow-up of own degrees.

OTHER INFO. OF INTEREST:	

LEARNING AND CONTINUAL IMPROVEMENT MACRO-PROCESS	Code: PC06.02
	Date of approval: 14/12/2022
CONTINUAL IMPROVEMENT MANAGEMENT PROCESS	Version: 1.0

RESULTS, ASSESSMENT AND REVIEW OF THE PROCESS

PROCESS MEASUREMENT: INDICATORS

Indicator no. To be filled by Quality	Indicator type				Indicator name and description	Quality Standard (Acceptance threshold)	Frequency of measurement (If annual, specify month. Avoid annual term when possible)	Verification source (Where can you go to check this indicator?)	Who provides it (Process head; GEA; T&T, etc.)
	S	P	PR	C					
1		X			Not applicable				

S: Satisfaction or perception. **P:** Performance or result: Results of the process. **K:** Key or linked to the strategic plan.
PR: Predictive: Associated with risks. Measurements that help me predict the risk of process compliance.

PROCESS VALIDATION To be filled by Quality

WRITES	REVIEWS	APPROVES
Quality Manager.	Vice-Rectorate for Studies and Quality.	Rectorate.

CHANGE HISTORY

REVIEW	DATE	CHANGES
01	14/12/2022	Initial editing of the document.

GLOBAL EXPERIENCE MACRO-PROCESS	Code: PE06.02
	Date of approval: 14/12/2022
MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING	Version: 1.0

EXPECTED RESULTS AND PROCESS APPROACH

IDENTIFICATION DATA AND PROCESS DESCRIPTION

MACRO-PROCESS (According to the organisation's process map).	PE06 GLOBAL EXPERIENCE.
PROCESS	PE06.02 MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING.
SUB-PROCESSES	
RESPONSIBLE (Include responsible Department).	Vice-Rectorate for Studies and Quality.

OVERALL OBJECTIVE OF THE PROCESS	Set up the importance of satisfaction and experience measurement for follow-up and decision making.

OPERATIONAL OBJECTIVES OF THE PROCESS OR EXPECTED RESULTS		**ALIGNMENT WITH ODS** To be filled by Quality		**ALIGNMENT WITH THE STRATEGIC PLAN** To be filled by Quality	
NO.	**Description of the objective/expected result of the process.**	**NO.**	**Sustainable Development Objective.**	**NO.**	**Related Strategic Plan Objective.**
1	Know the opinion of all the University's stakeholders in relation to the services and training offered by the University.		To be filled by Quality.		To be filled by Quality.
2	Provide stakeholders with analysis and/or results related to the perception of different stakeholders.		To be filled by Quality.		To be filled by Quality.
3	Manage the "Medallia" platform.		To be filled by Quality.		To be filled by Quality.

STAKEHOLDERS	**EXPECTATIONS AND NEEDS** (Why is it important to the stakeholder/How does it benefit the stakeholder?)	**FOLLOW-UP SYSTEM** (What control system/indicators will be used to ensure compliance? Example: Satisfaction surveys / No. of publications)
Students and alumni.	Improve delivery and experience of the service offered by the University.	Satisfaction surveys/NPS.
Teaching and Research Staff (PDI).	Improve the delivery and experience of the service offered by the University.	Satisfaction surveys/NPS.
Administration and Services Staff (PAS).	Improve delivery and experience of the service offered by the University.	Satisfaction surveys/NPS.
Decision-making bodies.	Improve service delivery and experience.	Satisfaction surveys/NPS.

GLOBAL EXPERIENCE MACRO-PROCESS	Code: PE06.02
	Date of approval: 14/12/2022
MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING	Version: 1.0

NECESSARY RESOURCES AND REQUIREMENTS

NECESSARY RESOURCES	
Material Resources (Which material elements are needed for the completion of the process?).	**Human Resources** (Which people are needed for the completion of the process?).
Medallia Application	Responsible for measurement.
"SPSS" Statistical software.	Medallia Support Team
	T&T Team.

NECESSARY RESOURCES			
Suppliers (Which department delivers?).	**Input Elements** (What do they deliver?).	**Output Elements** (Which is the completion of the process?).	**Addressees** (Who receives it?).
Technology.	Survey planning request.	Survey report.	Quality area Area responsible for the stakeholder.
T&T Team.	Surveyed group file; Medallia users file; Survey fields update;		

PROCESS DEPLOYMENT

BRIEF DESCRIPTION OF THE PROCEDURE

SUB-PROCESS (Sub-process name):	**Management of Follow-up and Improvement Committees (SIM)**	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
Detection of the need. (Type I: New creation). VR for Studies and Quality.	The need to know the opinion of the different stakeholders is detected: • A player of the institution (governing bodies and/or stakeholders). • The Vice-Rectorate team itself. • Detection in the process of assessment and/or internal/external audit (Verify/ Modify, Follow-up), • Renewal of Accreditation, etc.).	
Survey feasibility analysis. (Type I: New creation). VR for Studies and Quality.	Analysis of the study feasibility between the Vice-Rectorate for Studies and Quality and the person responsible for the area: • To which stakeholder group is it addressed? • Analysis of target population volume. • Platform capacity • Analysis of the launch timing • Prioritisation of the study by the Vice-Rectorate for Studies and Quality	
Questionnaire design. (Type I: New creation). VR for Studies and Quality.	The following steps shall be followed in order to design the questionnaire: • Consult surveys validated by other institutions. • Consult the items with experts in the subject to be addressed. • Follow the rules of item wording. • Establish the questionnaire dimensionality.	Student satisfaction questionnaire. Alumni satisfaction questionnaire. People satisfaction questionnaire. Supplier Questionnaire.
Study planning. (Type I: New creation). VR for Studies and Quality.	Study planning: • Write the study objective. • Approach to the methodology to be used. • Procedures to follow. • Questionnaire.	Proposed study report.
Survey approval. (Type I: New creation). Governing body.	Presentation of the study report to the governing body (steering committee, board of directors, etc.) for approval.	Minutes of the governing body.

GLOBAL EXPERIENCE MACRO-PROCESS	Code: PE06.02
	Date of approval: 14/12/2022
MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING	Version: 1.0

Creation of the survey in the "Medallia" application. (Type I: New creation). VR for Studies and Quality.	Steps to be taken in the "Medallia" application: - Creation of the survey template. - Creation of the mail template. - Creation of the reporting associated with the survey.	Medallia Platform.
Review of the study (Type II: Implemented study) VR for Studies and Quality.	Steps for follow-up and review of the study already implemented: - Review of the questionnaire (reliability analysis, wording, etc.) - Review of the procedure - Field review	
Launch and control of the survey VR for Studies and Quality.	For the launching of the surveys the following is necessary: - Preparation in Excel of the data of the study population. - Preparation of reminders and closing of the survey. - Performing user acceptance tests (UATs). - Launching of surveys through the appropriate application. - Checking the survey at the time of measurement.	Excel with population data to be analysed Survey launching application.
Access and review of reporting VR for Studies and Quality.	User access to survey reporting (Medallia) according to the study report Review and improvement of reporting on "Medallia". In case the survey has not been conducted through the Medallia tool, a report with the results will be made and shared with the person responsible for the area under study.	Medallia Platform. Ad-hoc results report (if the survey has not been conducted in Medallia).
Communication of survey availability to involved stakeholders (data and results). VR for Studies and Quality.	Drafting and dissemination of informative e-mail about data availability and results of the conducted surve.	E-mail communication of the availability of the results on the platform.
Dissemination of results. VR for Studies and Quality.	Dissemination of satisfaction and experience measurement results for general follow-up and decision making or through ad-hoc reports.	Medallia Platform. Ad-hoc reports (if any).
Improvement incorporation Continual Improvement Process	Each area is responsible for analysis and decision making to improve results. To this end, the University's Continual Improvement process is initiated.	Continual improvement process.

RISKS. SUB-PROCESS CONTROL POINTS AND ACTIVITIES

RISKS (What can happen so that the process does not develop properly?).	CONTROL POINTS AND ACTIVITIES (What can we do to avoid the risk?).
Disapproval of the survey by governing bodies.	The survey may be rejected by the governing bodies, leading to the need to revise or discard the process.
Incidents during the measurement process.	Increased importance to UAT process. Information to "Medallia" team on the measurement process to be followed.
Inconsistency of information in the UPDs (Educational Planning Units).	Awareness of the Dean's Office and Heads of studies/Directors of programmes on the updating of the UPDs.
"Medallia" application failure.	Monitor in the renewal of the contract with Medallia the introduction of preventive maintenance, as well as updates in the platform.

GLOBAL EXPERIENCE MACRO-PROCESS	Code: PE06.02
	Date of approval: 14/12/2022
MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING	Version: 1.0

RECORDS AND RELATED DOCUMENTS

RECORDS
(Summary of the records included in the description of the activities).

Code To be filled by Quality	Register
1	Satisfaction, recommendation and employability assessment questionnaires.
2	Proposed study report.
3	Medallia Platform.
4	E-mail.
5	Ad-hoc reports (if any).

PROCESSES, RECORDS / FORMS AND RELATED INTERNAL DOCUMENTS
(Other records that are required to be kept and that belong to other processes).

Code To be filled by Quality	Register
	Respondent group file; Medallia user file; Survey field update.
	Minutes of the governing body.
	Continual improvement process.
	Final accreditation follow-up or renewal report.

RELATED EXTERNAL DOCUMENTS
(Regulations, applicable legislation, etc.).

Register
"Medallia" platform manual
Technical documents of the benchmarking assessment agency.
UNE-EN ISO Standard.
Applicable university legislation.

OTHER INFO. OF INTEREST:	

RESULTS, ASSESSMENT AND REVIEW OF THE PROCESS

PROCESS MEASUREMENT: INDICATORS

Indicator no. To be filled by Quality	Indicator type				Indicator name and description	Quality Standard (Acceptance threshold)	Frequency of measurement (If annual, specify month. Avoid annual term when possible)	Verification source (Where can you go to check this indicator?)	Who provides it (Process head; GEA; T&T, etc.)
	S	P	PR	C					
2		X			Number of accesses: Number of times roles access the "Medallia" platform.	+5% over the previous year in the number of accesses/roles.	Annual.	Medallia.	Responsible for the process.
1		X			Percentage of responses received in each survey.	Reach a representative sample.	Annual.	Medallia.	Responsible for the process.
3			X		Reliability Index (check that the measured construct is valid).	Greater than 0.8.	Annual.	SPSS.	Responsible for the process.

S: Satisfaction or perception. **P:** Performance or result: Results of the process. **K:** Key or linked to the strategic plan.
PR: Predictive: Associated with risks. Measurements that help me predict the risk of process compliance.

PROCESS VALIDATION To be filled by Quality

WRITES	REVIEWS	APPROVES
Quality Manager.	Vice-Rectorate for Studies and Quality.	Rectorate.

GLOBAL EXPERIENCE MACRO-PROCESS	Code: PE06.02
	Date of approval: 14/12/2022
MEASUREMENT OF SATISFACTION AND EXPERIENCE OF THE PLAYERS INVOLVED IN TEACHING AND STUDENT LEARNING	Version: 1.0

CHANGE HISTORY

REVIEW	DATE	CHANGES
01	14/12/2022	Initial editing of the document.

ANNEX: FLOW CHART

FLOW CHART To be filled by Quality

TEACHING	Code: PC03.04
	Date of approval: 14/12/2022
COORDINATION	Version: 1.0

EXPECTED RESULTS AND PROCESS APPROACH

IDENTIFICATION DATA AND PROCESS DESCRIPTION

MACRO-PROCESS (According to the organisation's process map).	PO03 TEACHING.
PROCESS	PO03.04 COORDINATION.
SUB-PROCESSES	A) PO03.04.01 General Coordination of the Degree Programme. B) PO03.04.02 Coordination with lecturers (Horizontal and vertical coordination). C) PO03.04.03 Coordination with students.
RESPONSIBLE (Include responsible Department).	Directors/Heads of Studies.

OVERALL OBJECTIVE OF THE PROCESS	Achieve uniformity in the management of the degree programme and offer students a satisfactory experience in terms of coordination.

OPERATIONAL OBJECTIVES OF THE PROCESS OR EXPECTED RESULTS		**ALIGNMENT WITH ODS** To be filled by Quality		**ALIGNMENT WITH THE STRATEGIC PLAN** To be filled by Quality	
NO.	**Description of the objective/expected result of the process.**	**NO.**	**Sustainable Development Objective.**	**NO.**	**Related Strategic Plan Objective.**
1	Ensure a consistent vision of the Degree Programmes by the students, achieving an orderly learning itinerary.		To be filled by Quality.		To be filled by Quality.
2	Make lecturers feel integrated in UAX community and cooperate with each other.		To be filled by Qualit.y		To be filled by Quality.
3	Strengthen the efficiency of management processes.		To be filled by Quality.		To be filled by Quality.
4	Balance students' workloads.		To be filled by Quality.		To be filled by Quality.
5	Collect information from students that will contribute to Improve management of the Degree Programmes.				

STAKEHOLDERS	**EXPECTATIONS AND NEEDS** (Why is it important to the stakeholder/How does it benefit the stakeholder?)	**FOLLOW-UP SYSTEM** (What control system/indicators will be used to ensure compliance? Example: Satisfaction surveys / No. of publications)
Students.	Notice a consistent delivery of the Degree Programmes and coordination among lecturers.	Satisfaction survey.
Lecturers.	Feel themselves as a part of UAX teaching community and have information to plan their teaching.	Satisfaction Survey / Follow-Up Meetings / SIM.
Directors/Heads of Studies.	Have channels to transmit guidelines for the development of training programmes.	Annual Degree Programme Report / Follow-up Boards / SIM.

TEACHING	Code: PC03.04
	Date of approval: 14/12/2022
COORDINATION	Version: 1.0

NECESSARY RESOURCES AND REQUIREMENTS

NECESSARY RESOURCES	
Material Resources (Which material elements are needed for the completion of the process?).	**Human Resources** (Which people are needed for the completion of the process?).
No significant material resources are required.	Degree Faculty, Directors/ Heads of Studies.

NECESSARY RESOURCES			
Suppliers (Which department delivers?).	**Input Elements** (What do they deliver?).	**Output Elements** (Which is the completion of the process?).	**Addressees** (Who receives it?).
VR for Studies and Quality.	Satisfaction results Performance indicators.	Degree programme report.	Head of Studies Dean's Office.
Psycho-pedagogical support office.	Complaints and suggestions.	Coordination meetings.	Subject coordinator Head of Studies Dean's Office.

PROCESS DEPLOYMENT

BRIEF DESCRIPTION OF THE PROCEDURE

SUB-PROCESS (Sub-process name):	**General Coordination of the Degree Programme**	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
Search for PDI Head of Studies.	3 months before the start of the edition, the Director/Head of Studies analyses the needs of new lecturers and manages their recruitment with HR. See selection and recruitment process.	Selection and recruitment process.
Review of faculty profiles Head of Studies.	In parallel to the above, the Director/Head of Studies analyses changes in the Faculty (accreditations, doctorates, etc.).	
Course planning Head of Studies.	The Director/Head of Studies updates the Teaching Guide template, assigns lecturers to subjects and prepares timetables in UPD and Timetables. See teaching assignment process. See timetable development and planning process.	• Teaching Guide Template. • Teaching assignment. • Degree timetables. • Teaching assignment process. • Timetable development and planning process.
Review of materials Head of Studies.	The Director/Head of Studies, considering the opinions of students and lecturers, reviews the needs for updating the teaching material.	• Listing of required changes in teaching materials. • Material request.
Communication of teaching assignment. Head of Studies.	The Director/Head of Studies informs the lecturers of the assignment of subjects to be taught and provides them with the necessary documentation to prepare the subject. See teaching guide process.	• E-mail contact with lecturers. • Course description sheet extracted from the degree programme report. • Teaching guides.
Virtual Campus Review. Subject coordinator.	Subject coordinators and Directors/Heads of Studies review the Virtual Campuses to ensure that they are homogeneous and that they have all the necessary documentation.	N/A
SIM-T Committees. Head of Studies.	Three times a year, the SIM Committee of the degree meets in order to assess the correct development of the degree programme. See SIM process.	• SIM Agenda. • SIM meeting minutes.
Faculty Meeting. Dean's Office/Management.	Once a month, the Dean's Office/Management of the centre convenes a Faculty Meeting in which the Dean/Director participates together with the quality coordinator and the heads of studies of the different degree programmes of the centre in order to analyse and follow up on the degree programmes.	• Call for Faculty/School Meetings. • Minutes of the Faculty Meeting.

TEACHING	Code: PC03.04
	Date of approval: 14/12/2022
COORDINATION	Version: 1.0

SUB-PROCESS (Sub-process name):	COORDINATION WITH LECTURERS	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
Welcome Session for the Faculty.	At least 15 days prior to the beginning of the academic year, the Directors/Heads of Studies convene the Faculty for an academic year kick-off meeting.	• Convening of the Faculty. • Faculty meeting minutes.
Subject coordination meetings.	The coordinator of each subject meets periodically with the lecturers of that subject, at least at the beginning of the academic year and before each Follow-up and Assessment Meeting. In the event that the subject coordinator is the only lecturer of that subject, it is not necessary to fill out the meeting minutes.	• Call for subject coordination meeting. • Meeting minutes.
External Internships Faculty.	The Director/Head of Studies together with the External Internships coordinator convenes, at least 15 days before the beginning of the internship, the tutors to coordinate the subject.	• Convening of the Faculty. • Faculty meeting minutes.
End-of-Degree Project (TFG)/ End-of-Master Project (TFM)/ End-of-Studies Project (TFE) Faculty.	The Director/Head of Studies, together with the TFG/TFM/TFE coordinator, convenes, at least 15 days in advance, the tutors to coordinate the subject.	• Convening of the Faculty. • Faculty meeting minutes.
Follow-up meetings (Faculty).	The Director/Head of Studies convenes the subject coordinators twice a year (once per term) to the Follow-up Meeting to assess the progress of the term.	• Notice of Meeting. • Meeting minutes.
Assessment meetings.	The Director/Head of Studies convenes the Assessment meeting (two ordinary and one extraordinary) with the subject coordinators to assess the students' results.	• Notice of Meeting. • Meeting minutes.

SUB-PROCESS (Sub-process name):	COORDINATION WITH STUDENTS	
Activity Enter the name of the activity and the responsible Department.	**Description of the activity** (Activities that are essential for someone who does not know how the process works to be able to perform the task).	**Required records or forms and/or documents*** (Forms/records obtained in carrying out the activities. Not all activities need to have an associated record/form).
Welcome session for students. Head of Studies.	Prior to the beginning of the academic year, the Director/Head of Studies convenes students to a welcome session aimed at introducing them to the degree programme and the University's proprietary processes.	• Call for a welcome session.
External Internships briefing session.	The Director/Head of Studies together with the External Internships coordinator convenes a briefing session for students. See external internships process.	• Call for briefing session. • External internships process.
TFG/TFM/TFE briefing session.	The Director/Head of Studies together with the TFG/TFM/TFE coordinator convenes a briefing session for students. See TFG/TFM/TFE process.	• Call for briefing session. • TFG/TFM/TFE Process.
Coordination actions with students.	The Director/Head of Studies establishes a mechanism with which to assess, at least once per term, student satisfaction, maintaining contact with them to identify possible areas for improvement.	• Minutes of coordination with students.

TEACHING	Code: PC03.04
	Date of approval: 14/12/2022
COORDINATION	Version: 1.0

RISKS. SUB-PROCESS CONTROL POINTS AND ACTIVITIES

RISKS (What can happen so that the process does not develop properly?)	CONTROL POINTS AND ACTIVITIES / SLA (Service Level Agreement/Guarantee) (What can we do to avoid the risk?)
Duplications or gaps in content among subjects.	Review of Teaching Guides and materials.
Disparity in the organisation of subjects.	Virtual Campus Review.
Lack of connection with the University on the part of lecturers.	Periodic faculty meetings and contact with lecturers.
Concern about lack of information, especially in TFG/TFM/TFE and external internships.	Advance notice of briefing sessions.

RECORDS AND RELATED DOCUMENTS

RECORDS (Summary of the records included in the description of the activities)

Code To be filled by Quality	Register
	Faculty meeting minutes.
	Subject coordination minutes.
	SIM Minutes.
	Follow-Up Meeting minutes.
	Assessment meeting minutes.
	Minutes of coordination meeting with students.
	Listing of required changes in teaching materials.

PROCESSES, RECORDS / FORMS AND RELATED INTERNAL DOCUMENTS (Other records that are required to be kept and that belong to other processes)

Code To be filled by Quality	Register
	Agenda.
	Meeting minutes.
	Selection and recruitment process.
	Teaching assignment process.
	Timetable development and planning process. Degree timetables.
	Teaching guide template.
	Teaching assignment.
	Subject description sheet.
	Degree report.
	External internships process.
	TFG/TFM/TFE Process.

RELATED EXTERNAL DOCUMENTS (Regulations, applicable legislation, etc.)

Register

OTHER INFO. OF INTEREST:	

TEACHING	Code: PC03.04
	Date of approval: 14/12/2022
COORDINATION	Version: 1.0

RESULTS, ASSESSMENT AND REVIEW OF THE PROCESS

PROCESS MEASUREMENT: INDICATORS

Indicator no. To be filled by Quality	Indicator type				Indicator name and description	Quality Standard (Acceptance threshold)	Frequency of measurement (If annual, specify month. Avoid annual term when possible)	Verification source (Where can you go to check this indicator?)	Who provides it (Process head; GEA; T&T, etc.)
	S	P	PR	C					
	X				Satisfaction of students with Coordination among lecturers and subjects/modules.	8 out of 10	Annual	Survey of student degree programme satisfaction. Medallia.	VR for Studies and Quality. Director/Head of Studies' repository.
	X				Satisfaction of lecturers with the ease of coordination with lecturers related to their degree programme subjects.	>8.5 out of 10	Annual	Survey of lecturer degree programme satisfaction. Medallia.	VR for Studies and Quality Director/Head of Studies' repository.
		X			Number of minutes of subject coordination.	3	Annual	Director/Head of Studies' repository.	Director/Head of Studies.
		X			Number of follow-up meeting minutes.	4	Annual	Director/Head of Studies' repository.	Director/Head of Studies.
		X			Number of assessment meeting minutes.	3	Annual	Director/Head of Studies' repository.	Director/Head of Studies.
		X			Number of SIM minutes.	3	Annual	Director/Head of Studies' repository.	Director/Head of Studies.
		X			Number of minutes of coordination with students.	2	Annual	Director/Head of Studies' repository.	Director/Head of Studies.
		X	X		Complaints about teaching coordination.	<1%	Annual	Complaints and Suggestions Tool.	Psycho-pedagogical support office.

S: Satisfaction or perception. **P:** Performance or result: Results of the process. **K:** Key or linked to the strategic plan.
PR: Predictive: Associated with risks. Measurements that help me predict the risk of process compliance.

PROCESS VALIDATION To be filled by Quality

WRITES	REVIEWS	APPROVES
Responsible for centre.	VR for studies and quality.	Rectorate.

CHANGE HISTORY

REVIEW	DATE	CHANGES
01	14/12/2022	Initial editing of the document.

Appendix 5. List of scientific publications from the VEE's academic staff in peer reviewed journals during the last three academic years

Title	Researchers	Journal	DOI	IF[1]	Q[2]
Polyphenols and IUGR Pregnancies: Effects of Maternal Hydroxytyrosol Supplementation on Placental Gene Expression and Fetal Antioxidant Status, DNA-Methylation and Phenotype.	Consolación Garcia-Contreras, Marta Vazquez-Gomez, Alicia Barbero, José Luis Pesantez, Angelo Zinellu, Fiammetta Berlinguer, Pedro Gonzalez-Añover, Jorge Gonzalez, Teresa Encinas, Laura Torres-Rovira, Yolanda Nuñez, Jaime Ballesteros, Miriam Ayuso, Susana Astiz, Beatriz Isabel, Cristina Ovilo, Antonio Gonzalez-Bulnes.	Int J Mol Sci, Mar 8;20(5):1187 (2019)	10.3390/ijms20051187.	4,55	Q1
Surgical management of a brain abscess due to plant foreign body in a dog	Ana Cloquell, Isidro Mateo	Open Vet J. Jul-Sep; 9(3): 216–221 (2019).	10.4314/ovj.v9i3.5	1,45	Q2
Intervertebral T3-T4 Disc Extrusions in Two German Shepherd Dogs.	Isidro Mateo, Rocio Paniagua, Ana Cloquell, Fernando Vazquez.	J Am Anim Hosp Assoc. May/ Jun;55(3):e55303 (2019).	10.5326/JAAHA-MS-6883.	0,99	Q2
Incidence of surgical site infection in dogs undergoing soft tissue surgery: risk factors and economic impact.	Jorge Espinel-Rupérez, Maria Dolores Martín-Ríos, Veronica Salazar, Maria Rosario Baquero-Artigao, Gustavo Ortiz-Díez.	Vet Rec Open. 6(1): e000233 (2019).	10.1136/vetreco-2017-000233	1,36	Q2
Genotyping of prion protein in black merino sheep from the Iberian Peninsula.	Palomino, PM, Calle, LG, Proenca, JS, Maestre, ER, Fernandez-Garcia, JL.	SMALL RUMINANT RESEARCH. 173: 36-41 (2019)	10.1016/j. smallrumres.2019.02.010	1,61	Q3
Microcins, peptide antimicrobials from Enterobacterales in the eco-active intestinal chemosphere.	Baquero, F., Fernández. V., Baquero, M.R., Del Campo, R, Bravo, D.	Front Microbiol. . 2019 Oct 9;10:2261	10.3389/fmicb.2019.02261	5,64	Q1
Entomo-virological surveillance strategy for dengue, Zika and chikungunya arboviruses in field-caught Aedes mosquitoes in an endemic urban area of the Northeast of Brazil.	Izabel Cristina Dos Reis, Gerusa Gibson, Tania Ayllón, Alessandre de Medeiros Tavares, Josélio Maria Galvão de Araújo, Elias da Silva Monteiro, Amanda Rodrigues Aguiar, Josinaldo Vital de Oliveira, Anne Aline Pereira de Paiva, Hannaly Wana Bezerra Pereira, Joelma Dantas Monteiro, Marilia Sá Carvalho, Paulo Chagastelles Sabroz, Nildimar Alves Honório, ARBOALVO Network.	Acta Trop. Sep;197:105061 (2019)	10.1016/j. actatropica.2019.105061	3,11	Q1
A populational-based birth cohort study in a low-income urban area in Rio de Janeiro, Brazil: implementation and description of the characteristics of the study.	Renata Saraiva Pedro, Marilia Sá Carvalho , Vania Reis Girianelli, Luana Santana Damasceno, Izabel Leal, Denise Cotrim da Cunha, Liège Maria Abreu de Carvalho, Tania Ayllón, Mayumi Duarte Wakimoto, Jennifer Braathen Salgueiro, Laith Yakob, Nildimar Alves Honório, Patrícia Brasil.	Cad Saude Publica. 2019 May 23;35(5):e00023918	10.1590/0102-311X00023918.	1,63	Q3
High Prevalence of a Newly Discovered Wutai Mosquito Phasivirus in Mosquitoes from Rio de Janeiro, Brazil.	Mário Sérgio Ribeiro, Tania Ayllón, Viviana Malirat, Daniel Cardoso Portela Câmara, Cristina Maria Giordano Dias, Guilherme Louzada , Davis Fernandes-Ferreira, Roberto de Andrade Medronho , Renata Campos Acevedo.	Insects. May 7;10(5):135 (2019).	10.3390/insects10050135.	2,66	Q1
G2-S16 dendrimer microbicide does not interfere with the vaginal immune system.	Alba Martín-Moreno, Daniel Sepúlveda-Crespo, Mª Jesús Serramía-Lobera, Ana Judith Perisé-Barrios, Mª Angeles Muñoz-Fernández.	J Nanobiotechnology 2019 May 15;17(1):65	10.1186/s12951-019-0496-9.	3,87	Q1
Enhanced antitumor efficacy of oncolytic adenovirus-loaded menstrual blood-derived mesenchymal stem cells in combination with peripheral blood mononuclear cells.	Rafael Moreno Olie, Carlos Alberto Fajardo, Martí Farrera Sal, Ana Judith Perisé Barrios, Álvaro Morales Molina, Ahmed Al-Zaher, Javier García Castro, Ramón Alemany.	Molecular Cancer Therapeutic. 18(1), pp. 127 - 138. 2019.	10.1158/1535-7163.MCT-18-0431	6,26	Q1

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Title	Researchers	Journal	DOI	IF[1]	Q[2]
Serum and follicular fluid Stem Cell Factor assay in IVF poor responder and normal responder patients: a predictive biomarker of oocyte retrieval.	Mauro Cozzolino, Maria Cruz, Azadeh Patel, Jayesh Patel, Alberto Pacheco, Juan Antonio Garcia-Velasco.	Arch Gynecol Obstet. 2019 Aug;300(2):447-454.	10.1007/s00404-019-05172-2.	2,34	Q2
Two-step accelerating freezing protocol yields a better motility, membranes and DNA integrities of thawed ram sperm than three-steps freezing protocols.	Galarza DA, López-Sebastián A, Woelders H, Blesbois E, Santiago-Moreno J.	Cryobiology. 2019 Dec;91:84-89	10.1016/j.cryobiol.2019.10.007.	2,48	Q1
Effectiveness of ultra-rapid cryopreservation of sperm from endangered species, examined by morphometric means.	O'Brien E, Esteso MC, Castaño C, Toledano-Díaz A, Bóveda P, Martínez-Fresneda L, López-Sebastián A, Martínez-Nevado E, Guerra R, López Fernández M, Vega RS, Guillamón FG, Santiago-Moreno J.	Theriogenology. 2019 Apr 15;129:160-167	10.1016/j.theriogenology.2019.02.024	2,74	Q1
Seminal plasma amino acid profile in different breeds of chicken: Role of seminal plasma on sperm cryoresistance.	Santiago-Moreno J, Bernal B, Pérez-Cerezales S, Castaño C, Toledano-Díaz A, Esteso MC, Gutiérrez-Adán A, López-Sebastián A, Gil MG, Woelders H, Blesbois E.	PLoS One. 2019 Jan 4;14(1):e0209910.	10.1371/journal.pone.0209910	3,24	Q1
Bile-induced promoters for gene expression in Lactobacillus Strains.	Martínez-Fernandez, J.A., Bravo, D. Peroitén, A., Arqués, J.L., Landete, J.M.	Applied Microbiology and Biotechnology, 2019. 103: 3819-3827	10.1007/s00253-019-09743-w	4,81	Q2
Influence of different lignan compounds on enterolignan production by Bifidobacterium and Lactobacillus strains.	Peroitén, A., Gaya, P., Álvarez, I., Bravo, D., Landete, J.M.	International Journal of Food Microbiology, 2019, 289:17-23	10.1016/j.ijfoodmicro.2018.08.028	5,27	Q1
Carnivore parvovirus ecology in the Serengeti ecosystem: Vaccine strains circulating and new host species identified.	Calatayud, O. Esperón, F. Cleaveland, S. Biek, R. Keyyu, J. Eblate, E. Neves, E. Lembo, T. Lankester, F.	J Virol. 2019 14;93(13):e02220-18	10.1128/JVI.02220-18	5,1	Q1
Novel herpesviruses in riverine and marine cetaceans from South America.	Sacristán, C. Esperón, F. Ewbank, A.C. Díaz-Delgado, J. Ferreira-Machado, E. Costa-Silva, S. Sánchez-Sarmiento, A.M. Groch, K.R. Neves, E. Pereira Dutra, G.H. Gravena, W. Ferreira Da Silva, V.M. Marcondes, M.C.C. Castaldo Colosio, A. Cremer, M.J. Carvalho, V.L. O. Meirelles, A.C. Marigo, J. Catão-Dias, J.L.	Acta Tropica 190: 220-227 (2019)	10.1016/j.actatropica.2018.11.021	3,11	Q1
Fusariosis in a Captive South American Sea Lion (Otaria flavescens): A Case Report.	Reisfeld, L. Sacristán, C. Canedo, P. Schwarz, B. Ewbank, A.C. Esperón, F. Catão-Dias, J.L	Mycopathologia 184 (1): 187-192 (2019)	10.1007/s11046-018-0270-9	2,57	Q1
Fatal pulmonary parafilaroidiasis in a free-ranging subantarctic fur seal (Arctocephalus tropicalis) coinfected with two gammaherpesviruses and sarcocystis sp.	Reisfeld, L. Sacristán, C. Sánchez-Sarmiento, A.M. Costa-Silva, S. Díaz-Delgado, J. Groch, K.R. Marigo, J. Ewbank, A.C. Favero, C.M. Guerra, J.M. Réssio, R.A. Cremer, M.J. Esperón, F. Catão-Dias, J.L.	Revista Brasileira de Parasitologia Veterinaria 28 (3): 499-503 (2019)	10.1590/S1984-29612019029	1,45	Q2
Antimicrobial resistance genes present in the faecal microbiota of free-living Galapagos tortoises (Chelonoidis porteri).	Nieto-Claudin, A. Esperón, F. Blake, S. Deem, S.L.	Zoonoses and Public Health 66 (8): 900-908 (2019)	10.1111/zph.12639	2,7	Q1
Blastocystis sp. Subtype Diversity in Wild Carnivore Species from Spain.	R Calero-Bernal, M Santín, J G Maloney, M Martín-Pérez, MA Habela, JL Fernández-García, A Figueiredo, F Nájera, MJ Palacios, Marta Mateo , ABalseiro, M Barral, JF Lima-Barberoi, C Köster, D Carmena.	J Eukaryot Microbiol. 67 (2):273-278 (2020).	10.1111/jeu.12772.	4,62	Q1

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Title	Researchers	Journal	DOI	IF[1]	Q[2]
Metformin Alleviates Obesity and Systemic Oxidative Stress in Obese Young Swine.	S Astiz *, A Gonzalez-Bulnes, I Astiz, Alicia Barbero, JL Pesantez-Pacheco, C Garcia-Contreras, M Vazquez-Gomez, A Heras-Molina.	Pharmaceuticals 142, 13, (2020)	10.3390/ph13070142	4,61	Q1
Administration of glycerol-based formulations in sheep results in similar ovulation rate to eCG but red blood cell indices may be affected.	C Porcu, FD. Sotgiu, V Pasciu, M Grazia Cappai, Alicia Barbero-Fernández, A Gonzalez-Bulnes, M Dattena, M Gallus, G Molle, F Berlinguer.	BMC Veterinary Research, 207, 16, (2020)	10.1186/s12917-020-02418-z	1,98	Q1
Median manubriotomy for ventral access to the caudal cervical and cranial thoracic spine.	Isidro Mateo.	Veterinary Surgery, 49, 5; 923-929 (2020)	10.1111/vsu.13412.	1,25	Q2
Palliative ventriculoperitoneal shunting in dogs with obstructive hydrocephalus caused by tumors affecting the third ventricle.	Orlandi R, Vasilache CG, Mateo, I.	Journal of Veterinary Internal Medicine, 34, 4, 1556-1562 (2020)	10.1111/jvim.15818	2,19	Q1
AKT and JUN are differentially activated in mesenchymal stem cells after infection with human and canine oncolytic adenoviruses.	Rodriguez-Mill MA, Morales-Molina A, Perise-Barrios AJ, Cejalvo T, Garcia-Castro, J.	Cancer Gene Therapy, 28, 1, 64-73 (2020)	10.1038/s41417-020-0184-9	4,53	Q1
Biodistribution Analysis of Oncolytic Adenoviruses in Canine Patient Necropsy Samples Treated with Cellular Virotherapy.	Gomez A, Sardon D, Cejalvo T, Vazquez F, Garcia-Castro J, Perise-Barrios AJ.	Molecular Therapy - Oncolitics, 18, 525-534 (2020)	10.1016/j.omto.2020.08.006	4,11	Q1
Prevalence of Dal blood type and dog erythrocyte antigens (DEA) 1, 4, and 7 in canine blood donors in Italy and Spain.	Proverbio D, Lubas G, Spada E, Valentin AAM, Florez LMV, Chamizo MDP, Perego R, Pennisi MG, Ferro E, Baggiani L, Gavazza A, Blais MC.	BMC Veterinary Research, 16, 1 (2020)	10.1186/s12917-020-02351-1	1,98	Q1
Antimicrobial resistance increased over an 8-years period in Enterobacteriaceae cultured from canine urine samples.	Ramos PJG, Shiel RE, Perez CF, Boeta AMR, Chamizo MRP, Aguado JIB, Duro NR, Ortiz-Diez G.	J Small Anim Pract. Apr;62(4):279-285 (2021).	10.1111/jsap.13291.	1,1	Q2
The impact of prenatal environment on postnatal life and performance: Future perspectives for prevention and treatment.	A Gonzalez-Bulnes, V H Parraguez, F Berlinguer, A Barbero, C Garcia-Contreras, J Lopez-Tello, J L Pesantez-Pacheco, P Martinez-Ros.	Theriogenology, Jul 1;150:15-19 (2020)	10.1016/j.theriogenology. 2020.01.029.	2,74	Q1
Cellular Virotherapy Increases Tumor-Infiltrating Lymphocytes (TIL) and Decreases their PD-1+ Subsets in Mouse Immunocompetent Models.	Alvaro Morales-Molina, Miguel Ángel Rodríguez-Milla, Alicia Gimenez-Sanchez, Ana Judith Perisé-Barrios, Javier García-Castro.	Cancers (Basel). Jul; 12(7): 1920 (2020)	10.3390/cancers12071920	6,1	Q1
The prognostic value of the Koret CT score in dogs following traumatic brain injury.	K Rapoport, I Mateo, D Peery, M Mazaki-Tovi, S Klainbart, E Kelmer, M Ruggeri, M H Shamir, O Chai.	Vet J. Dec;266:105563 82020)	10.1016/j.tvjl.2020.105563.	2,68	Q1
Palliative ventriculoperitoneal shunting in dogs with obstructive hydrocephalus caused by tumors affecting the third ventricle.	Rocio Orlandi, Cornel G Vasilache, Isidro Mateo.	J Vet Intern Med. Jul;34(4):1556-1562 (2020).	10.1111/jvim.15818.	3,33	Q1
Epidemiology of the colonization and acquisition of methicillin-resistant staphylococci and vancomycin-resistant enterococci in dogs hospitalized in a clinic veterinary hospital in Spain.	Gustavo Ortiz-Díez, Raúl López, Ana María Sánchez-Díaz, María-Carmen Turrientes, María-Rosario Baquero, Ruth Luque, Alba Maroto, Cristina Fernández, Tania Ayllón.	Comp Immunol Microbiol Infect Dis. Oct;72:101501 (2020).	10.1016/j.cimid.2020.101501.	2,28	Q1

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Magnetic-Activated Cell Sorting (MACS): A Useful Sperm-Selection Technique in Cases of High Levels of Sperm DNA Fragmentation.	Pacheco A, Blanco A, Bronet F, Cruz M, García-Fernández J, García-Velasco JA.	J Clin Med. 8;9(12):3976 (2020).	10.3390/jcm9123976	4,24	Q1
Ovarian stimulation does not influence the uterine immune environment in healthy infertile women.	D Alecsandru, A Pacheco, A Guerrero-Mayo, A Fabris, P Aparicio, A Barrio, A Pellicer, Juan A Garcia-Velasco.	Reprod Biomed Online. 2020 Jan;40(1):113-123	10.1016/j.rbmo.2019.08.004.	3,28	Q1
Quantifying the Economic Impact of Bovine Tuberculosis on Livestock Farms in South-Western Spain.	Rosario Pérez-Morote, Carolina Pontones-Rosa, Christian Gortázar-Schmidt, Álvaro Ignacio Muñoz-Cardona.	Animals 2020, 10, 2433	10.3390/ani10122433	3,32	Q3
In vitro supplementation of testosterone or prolactin affects spermatozoa freezability in small ruminants.	Martínez-Fresneda L, O'Brien E, López-Sebastián A, Velázquez R, Toledano-Díaz A, Tesfaye D, Schellander K, García-Vázquez FA, Santiago-Moreno J.	Domest Anim Endocrinol. 2020 Jul;72:106372	10.1016/j.domaniend.2019.06.004	2,29	Q2
Cryopreservation of ferret (Mustela putorius furo) sperm collected by rectal massage and electroejaculation: Comparison of a decelerating and an accelerating freezing rate protocol.	Toledano-Díaz A, Castaño C, Velázquez R, Bóveda P, López-Sebastián A, Martínez-Nevado E, Villaverde-Morcillo S, Esteso MC, Santiago-Moreno J.	Vet Med Sci. 2020 Oct 11	10.1002/vms3.362	1,26	Q2
Supplementing a skimmed milk-egg yolk-based extender with L-carnitine helps maintain the motility, membrane integrity and fertilizing capacity of chilled ram sperm.	Galarza DA, López-Sebastián A, Santiago-Moreno J.	Reprod Domest Anim. 2020 Jul;55(7):805-813	10.1111/rda.13687	2	Q2
Ultra-rapid cooling of ibex sperm by spheres method does not induce a vitreous extracellular state and increases the membrane damages.	Bóveda P, Toledano-Díaz A, Castaño C, Esteso MC, López-Sebastián A, Rizos D, Bielli A, Ungerfeld R, Santiago-Moreno J.	PLoS One. 2020 Jan 24;15(1):e0227946.	10.1371/journal.pone.0227946	3,24	Q1
Unilateral single vaginal ectopic ureter with ipsilateral hypoplastic and degenerated kidney associated with infertility in iberian ibex (capra pyrenaica) does.	Galarza Lucero D, Bóveda Gómez P, Toledano-Díaz A, Castaño C, Esteso M, López-Sebastián A, Sánchez-Calabuig MJ, Santiago-Moreno J.	J Zoo Wildl Med. 2020 Mar 17;51(1):196-201	10.1638/2019-0011.	0,77	Q2
Influence of testosterone administration at the end of the breeding season on sperm cryoresistance in rams (Ovis aries) and bucks (Capra hircus).	Flores-Gil VN, Millan de la Blanca MG, Velázquez R, Toledano-Díaz A, Santiago-Moreno J, López-Sebastián A.	Domest Anim Endocrinol. 2020 Jul;72:106425	10.1016/j.domaniend.2019.106425	2,29	Q2
Short term administration of cyproterone acetate for contraception: Effects on testosterone secretion and semen characteristics in rams (Ovis aries) and bucks (Capra hircus).	Flores-Gil VN, Velázquez, R, Toledano-Díaz, A, Santiago-Moreno, J., López-Sebastián, A.	Sp. J. Agric. Res. 18 (4). 1-20. 2020	10.5424/sjar/2020184-16871	1,23	Q3
Bacterial metabolism as responsible of beneficial effects of phytoestrogens on human health.	Peirotén, A., Bravo, D., Landete.	Crit Rev Food Sci Nutr. . 2020;60(11):1922-1937	10.1080/10408398.2019.1622505.	11,76	Q1
Inactivation of Listeria monocytogenes during dry-cured ham processing.	Montiel, R., Peirotén A., Ortiz, S., Bravo, D., Gaya, P., Martinez-Suarez, J.V., Tapiador, J., Núñez, M., Medina, M.	Int J Food Microbiol. 2020 Apr 2;318:108469.	10.1016/j.ijfoodmicro.2019.108469	5,27	Q1
Characterization of persistent Listeria monocytogenes strains from ten dry-cured ham processing facilities.	D'Arrigo M., Mateo-Vivaracho L., Guillamón E., Fernández-León M.F., Bravo D., Peirotén A., Medina M., García-Lafuente A.	Food Microbiol. 2020 Dec;92:103581.	10.1016/j.fm.2020.103581	5,51	Q1

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Title	Researchers	Journal	DOI	IF[1]	Q[2]
Antibiotic resistance genes as landscape anthropization indicators: Using a wild felid as sentinel in Chile.	Sacristán, I. Esperón, F. Acuña, F. Aguilar, E. García, S. López, M.J. Cevidanes, A. Neves, E. Cabello, J. Hidalgo-Hermoso, E. Poulin, E. Millán, J. Napolitano, C.	Sci Total Environ. 2020 Feb 10;703:134900.	10.1016/j.scitotenv.2019.134900	7,96	Q1
Genetic characterization of Carnivore Parvoviruses in Spanish wildlife reveals domestic dog and cat-related sequences.	Calatayud, O. Esperón, F. Velarde, R. Oleaga, Á. Llaneza, L. Ribas, A. Negre, N. de la Torre, A. Rodríguez, A. Millán, J.	Transboundary and Emerging Diseases 67 (2): 626-634	10.1111/tbed.13378	5	Q1
Hemoplasmas are endemic and cause asymptomatic infection in the endangered darwin's fox (Lycalopex fulvipes).	Di Cataldo, S. Hidalgo-Hermoso, E. Sacristán, I. Cevidanes, A. Napolitano, C. Hernández, C.V. Esperón, F. Moreira-Arce, D. Cabello, J. Müller, A. Millán, J	Applied and Environmental Microbiology 86 (12) (2020)	10.1128/AEM.00779-20	4,79	Q1
Antimicrobial resistance genes in Andean foxes inhabiting anthropized landscapes in central Chile.	Cevidanes, A. Esperón, F. Di Cataldo, S. Neves, E. Sallaberry-Pincheira, N. Millán, J.	Sci Total Environ. 2020 Jul 1;724:138247	10.1016/j.scitotenv.2020.138247	7,96	Q1
A ten-year-surveillance program of zoonotic pathogens in feral pigeons in the City of Madrid (2005–2014): The importance of a systematic pest control	Perez-Sancho, M. García-Seco, T. Porrero, C. García, N. Gomez-Barrero, S. Cámara, J.M. Domínguez, L. Álvarez, J.	Research in Veterinary Science 128: 293-298 (2020)	10.1016/j.rvsc.2019.12.006	2,53	Q1
Humoral response to SARS-CoV-2 by healthy and sick dogs during COVID-19 pandemic in Spain.	Ana Judith Perisé-Barrios *, Beatriz Davinia Tomeo-Martín, P Gómez-Ochoa, Pablo Delgado-Bone, P Plaza, Paula Palau-Concejo, J González, Gustavo Ortiz-Diez, A Meléndez-Lazo, M Gentil, Javier García-Castro, Alicia Barbero-Fernández.	Veterinary Research, 52, 22 (2021)	10.1186/s13567-021-00897-y	3,35	D1/ Q1
Ultrasound-guided radiofrequency ablation of chemodectomas in five dogs.	Pablo Gómez Ochoa, María Dolores Alférez, Ignacio de Blas, Telmo Fernendes, Xavier Sánchez Salguero, Beatriz Balañá, Antonio Meléndez Lazo, Alicia Barbero Fernandez, Domenico Caivano, Francesca Corda, Andrea Corda.	Animals, Sep 24;11(10):2790 (2021)	10.3390/ani11102790	3,32	Q3
Strain Elastography of Injured Equine Superficial Digital Flexor Tendons: A Reliability Study of Manual Measurements.	Valentina Secchi, Gerolamo Masala, Andrea Corda, Francesca Corda, Enrica Potop, Alicia Barbero Fernandez, Maria Luisa Pinna Parpaglia, Eraldo Sanna Passino.	Animals, Mar 12;11(3):795 (2021)	10.3390/ani11030795	3,32	Q3
Use of Deoxycorticosterone Pivalate by Veterinarians: A Western European Survey.	Rita Rebocho, Marina Domínguez-Ruiz, Ryane E. Englar, Carolina Arenas, Maria Dolores Pérez-Alenza, Andrea Corsini, Federico Fracassi, Michael Bennaim, Rodolfo Oliveira Leal	Vet Sci. Nov; 8(11): 271 (2021)	10.3390/vetsci8110271	2,31	Q1
Dorsal Atlantoaxial Ligament Hypertrophy as a Cause for Clinical Signs in Dogs with Dens Abnormalities.	Ana Cloquell, Rocio Orlandi, Fernando Vázquez, Isidro Mateo.	J Am Anim Hosp Assoc, Jan 1;57(1):26-31 (2021)	10.5326/JAAHA-MS-7013.	1,02	Q2
Antimicrobial resistance increased over an 8-year period in Enterobacteriaceae cultured from canine urine samples.	P J Guzmán Ramos, R E Shiel, C Fernández Pérez, A M Ríos Boeta, M R Perlado Chamizo, J I Ballester Aguado, N Ruiz Duro, G Ortiz-Díez	J Small Anim Pract. Apr;62(4):279-285 820219 (2021)	10.1111/jsap.13291.	1,52	Q1
Systemic Treatment of Immune-Mediated Keratoconjunctivitis Sicca with Allogeneic Stem Cells Improves the Schirmer Tear Test Score in a Canine Spontaneous Model of Disease.	Manuel Hermida-Prieto, Javier García-Castro, Luis Mariñas-Pardo.	J Clin Med. Dec; 10(24): 5981 (2021)	10.3390/jcm10245981	4,24	Q1

[1] Impact Factor [2] Quartile

Title	Researchers	Journal	DOI	IF[1]	Q[2]
Molecular survey of Besnoitia spp. (Apicomplexa) in faeces from European wild mesocarnivores in Spain.	David González-Barrio, Pamela C Köster , Miguel A Habela, Manuel Martín-Pérez, Jose L Fernández-García, Ana Balseiro, Marta Barral, Fernando Nájera, Ana M Figueiredo, Maria Jesus Palacios, Marta Mateo, David Carmena, Gema Álvarez-García, Rafael Calero-Bernal.	Transbound Emerg Dis. Nov;68(6):3156-3166 (2021)	10.1111/tbed.14206.	5	Q1
Association between respiratory clinical signs and respiratory localization in dogs and cats with abnormal breathing patterns.	M Domínguez-Ruiz, C R Reinero, A Vientos-Plotts, M E Grobman, D Silverstein, E Gomes, K Le Boedec.	Vet J. Nov;277:105761 (2021).	10.1016/j.tvjl.2021.105761.	2,68	Q1
Interclinician agreement on the recognition of selected respiratory clinical signs in dogs and cats with abnormal breathing patterns.	M Domínguez-Ruiz, C R Reinero, A Vientos-Plotts, M E Grobman, D Silverstein, K Le Boedec.	Vet J Nov;277:105760 82021)	10.1016/j.tvjl.2021.105760	2,68	Q1
Serum anti-GM2 and anti-GalNAc-GD1a IgG antibodies are biomarkers for acute canine polyradiculoneuritis.	Halstead, SK Gourlay, DS Penderis, J Bianchi, E Dondi, M Wessmann, A Musteata, M Le Chevoir, M Martinez-Anton, L Bhatti, SFM Volk, H Mateo, I Tipold, A Ives, E Pakozdy, A Gutierrez-Quintana, R Brocal, J Whitehead, Z -granger, N Pazzi, P Harcourt-Brown, T Jose-Lopez, R Rupp, S Schenk, HC Smith, P Gandini, C Menchetti, M Mortera-Balsa, V Rusbridge, C Tauro, A Cozzi, F Deutschland, M Tirrito, F Freeman, P Lowrie, M Jackson, MR Willison, HJ Rupp, A.	J Small Anim Pract. 2-9, (2021)	10.1111/jsap.13439	1,52	Q1
A Comparative Study of Biocompatibility in Rat ConnectiveTissue of a New Mineral Trioxide Compound (Theracal) versusMTA and a Bioactive G3 Glass.	Jesús Mena-Álvarez, Cristina Rico-Romano, Carlos Gutiérrez-Ortega, Pablo Arias-Sanz, Javier Castro-Urda.	J. Clin. Med.2021,10, 2536	0.3390/jcm10122536	4,24	Q1
Open approach to correct traumatic closed tracheal lacerations: A case series.	Iglesias-García, M., Lepage, O. M., Ezquerra Calvo, L. J., Muñoz Morán, J. A.	Equine Veterinary Education, 33(9), 459.	10.1111/eve.13289	1,04	Q4
First detection of Anaplasma phagocytophilum and Babesia divergens and high infection rates of Anaplasma marginale and Babesia bigemina in cattle in extensive grazing systems of Central Spain.	Lydia Calleja-Bueno, Ángel Sainz, Mercedes García-Sancho, Juan V González-Martín, David Díaz-Regañón, Fernando Rodríguez-Franco, Beatriz Agulla, Bárbara Tormo, Alejandra Villaescusa.	Transbound Emerg Dis. 2021 Nov 18.	10.1111/tbed.14394	5	Q1
Reproductive senescence and energetic metabolism of human luteinized granulosa cells: is it all about ATP? A prospective cohort and critical view.	Gustavo N Cecchino, Alberto Pacheco, Juan A García-Velasco.	Gynecol Endocrinol. 2021 Jun;37(6):523-527.	10.1080/09513590.2020. 1810656.	2,37	Q2
Vitamin D in Follicular Fluid Correlates With the Euploid Status of Blastocysts in a Vitamin D Deficient Population.	Ana Arnanz, Neelke De Munck, Ibrahim El Khatib, Aşina Bayram, Andrea Abdala, Laura Melado, Barbara Lawrenz, Carol Coughlan, Alberto Pacheco, Juan A Garcia-Velasco, M Fatemi.	Front Endocrinol. 2021 Jan 25;11:609524.	10.3389/fendo.2020.609524	5,55	Q2
Serum anti-Müllerian hormone levels are not associated with aneuploidy rates in human blastocysts.	Angela Pipari, Alfredo Guillen, María Cruz, Alberto Pacheco, Juan A Garcia-Velasco.	Reprod Biomed Online. 2021 Jun;42(6):1211-1218.	10.1016/j.rbmo.2021.03.006.	3,82	Q1
Sperm selection by magnetic-activated cell sorting before microinjection of autologous oocytes increases cumulative live birth rates with limited clinical impact: a retrospective study.	María Gil Juliá, Irene Hervás, Ana Navarro-Gómez Lechón, Fernando Quintana, David Amorós, Alberto Pacheco, Cristina González-Ravina, Rocío Rivera-Egea, Nicolás Garrido.	Biology. 2021 May 12;10(5):430.	10.3390/biology10050430	5,1	Q1

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Cryopreservation of ferret (Mustela putorius furo) sperm collected by rectal massage and electroejaculation: comparison of a decelerating and an accelerating freezing rate protocol.	Toledano-Díaz A, Castaño C, Velázquez R, Bóveda P, López-Sebastián A, Martínez-Nevado E, Villaverde S, Esteso MC, Santiago-Moreno J.	Vet. Med. Sci. (2021) 7:256–263	10.1002/vms3.362	1,26	Q2
Slow and ultra-rapid freezing protocols for cryopreserving roe deer (Capreolus capreolus) epididymal sperm collected at different times of year.	Santiago-Moreno J, Castaño C, Bóveda P, Mejía O, Velázquez R, Martínez-Fresneda L, Flores-Gil VN, Marcos-Beltrán JL, González-Guirado AM, Esteso MC, Toledano-Díaz A, López-Sebastián A.	Europ. J. of Wild. Res. (2021) 67:24	10.1007/s10344-021-01468-4	2,2	Q1
Influence of circulating testosterone concentration on sperm cryoresistance: the ibex as an experimental model.	Bóveda P, Esteso MC, Velázquez R, Castaño C, Toledano-Díaz A, López-Sebastián A, Mejía O, Millán de la Blanca MG, Ungerfeld R, Santiago-Moreno J.	Andrology (2021) 9:1242–1253	10.1111/andr.12998	3,82	Q1
Role of changes in plasma prolactin concentrations on ram and buck sperm cryoresistance.	Flores-Gil VN, Toledano-Díaz A, Velázquez R, Oteo M, López-Sebastián A, Santiago-Moreno J.	Domestic Animal Endocrinology 76 (2021) 106624	0.1016/j.domaniend.2021.106624	2,29	Q2
Seasonal changes in testosterone and thyroxine concentrations in Mediterranean rams and bucks and their relationship with sperm cryoresistance.	Martínez-Madrid B, Castaño C, Ureña LP, Flix E, Velázquez R, López-Sebastián A, Ungerfeld R, Arrebola FA, Santiago-Moreno J.	Livestock Science (2021) 249:104513	10.1016/j.livsci.2021.104513	1,94	Q1
Birchen and Blue Leonesa sperm cryopreservation and a new technique for evaluating the integrity of cockerel sperm membranes.	Bernal B, Castaño C, Esteso MC, Toledano-Díaz A, Domínguez-González MA, Gil MG, López-Sebastián A, Campo JL, Blesbois E, Santiago-Moreno J.	British Poultry Science (2021) 1-8	10.1080/00071668.2021.1955333	2,09	Q2
Health assessments uncover novel viral sequences in five species of Galapagos tortoises.	Nieto-Claudin, A. Esperón, F. Apakupakul, K. Peña, I. Deem, S.L.	Transbound Emerg Dis. 2022 Jul;69(4):e1079-e1089	10.1111/tbed.14391	5	Q1
Epidemiology and molecular characterization of Carnivore protoparvovirus-1 infection in the wild felid Leopardus guigna in Chile.	Sacristán, I. Esperón, F. Pérez, R Acuña, F. Aguilar, E. García, S. López, M.J. Neves, E. Cabello, J. Hidalgo-Hermoso, E. Terio, K.A. Millán, J. Poulin, E. Napolitano, C.	Transboundary and Emerging Diseases 68 (6): 3335-3348 (2021)	10.1111/tbed.13937	5	Q1
Haematology and plasma biochemistry reference intervals for the critically endangered western Santa Cruz Galapagos tortoise (Chelonoidis porteri).	Nieto-Claudín, A. Palmer, J.L. Esperón, F. Deem, S.L.	Conservation Physiology 9 (1) (2021)	10.1093/conphys/coab019	3,07	Q1
Seabirds as anthropization indicators in two different tropical biotopes: A One Health approach to the issue of antimicrobial resistance genes pollution in oceanic islands.	Ewbank, A.C. Esperón, F. Sacristán, C. Sacristán, I. Krul, R. Macedo Cavalcanti, E. Calatayud, O. Bueno, I. de Francisco Strefezzi, R. Catão-Dias, J.L.	Science of the Total Environment 754 (2021)	10.1016/j.scitotenv.2020.142141	7,96	Q1
Neoplasms and novel gammaherpesviruses in critically endangered captive European minks (Mustela lutreola).	Nicolas de Francisco, O. Esperón, F. Juan-Sallés, C. Ewbank, A.C. das Neves, C.G. Marco, A. Neves, E. Anderson, N. Sacristán, C.	Transboundary and Emerging Diseases 68 (2): 552-564 (2021)	10.1111/tbed.13713	5	Q1
Occurrence and Quantification of Antimicrobial Resistance Genes in the Gastrointestinal Microbiome of Two Wild Seabird Species With Contrasting Behaviors.	Ewbank, A.C. Esperón, F. Sacristán, C. Sacristán, I. Neves, E. Costa-Silva, S. Antonelli, M. Rocha Lorenço, J. Kolesnikovas, C.K.M. Catão-Dias, J.L.	Frontiers in Veterinary Science 8 (2021)	10.3389/fvets.2021.651781	5,31	Q1

[1] Impact Factor [2] Quartile

Title	Researchers	Journal	DOI	IF[1]	Q[2]
Association of gastric lymphofollicular hyperplasia with Helicobacter-like organisms in dogs.	Tom Biénès, Rodolfo Oliveira Leal, Marina Domínguez-Ruiz, Rodolfo Elvas De Carvalho, Nina Fernandes Rodrigues, Claire Dally, Jean-Charles Husson, Kevin Le Boedec, Juan Hernández.	Journal of Veterinary Internal Medicine 1-10; 2022	10.1111/jvim.16387	3,33	Q1
Babesia and Theileria Identification in Adult Ixodid Ticks from Tapada Nature Reserve, Portugal.	Nélida Fernández, Belen Revuelta, Irene Aguilar, Jorge Francisco Soares, Annetta Zintl, Jeremy Gray, Estrella Montero, Luis Miguel González.	Pathogens 2022 Feb 8;11(2):222.	10.3390/pathogens11020222	3,4	Q2
Effects of age and oligosthenozoospermia on telomeres of sperm and blood cells.	Carlos Balmoria, Isabel Cordova-Oriz, Guillermo De Alba, Marta Medrano, Laura Jiménez-Tormo, Alba María Polonio, Lucia Chico-Sordo, Alberto Pacheco, Juan A.García-Velasco, Elisa Varela.	Reproductive BioMedicine Online	10.1016/j.rbmo.2021.10.010	3,82	Q1
Effectiveness Of Neuromuscular Electrical Stimulation And Dynamic Mobilization Exercises On Equine Multifidus Muscle Cross-Sectional Area.	RG Lucas, I Rodríguez-Hurtado, C Troteaga, GOrtiz.	Journal of Equine Veterinary Science	10.1016/j.jevs.2022.103934	1,58	Q2
Predictive Models for Equine Emergency Exploratory Laparotomy in Spain: Pre-, Intra-, and Post-Operative-Mortality-Associated Factors.	Manuel Iglesias-García, Isabel Rodríguez Hurtado, Gustavo Ortiz-Díez, Jorge De la Calle del Barrio, Cristina Fernández Pérez, Raquel Gómez Lucas.	Animals 2022, 12, 1375.	10.3390/ani12111375	3,23	Q1
Effectiveness of Neuromuscular Electrical Stimulation and Dynamic Mobilization Exercises on Equine Multifidus Muscle Cross-Sectional Area.	Raquel Gómez Lucas, Isabel Rodríguez-Hurtado, Carla Troteaga Álvarez, Gustavo Ortiz.	Journal of Equine Veterinary Science 113 (2022) 103934	10.1016/j.jevs.2022.103934	1,58	Q3
Tumor-Homing of Mesenchymal Stem Cells Infected with Oncolytic Virus in a Canine Patient.	Pablo Delgado-Bonet, Beatriz Davinia Tomeo-Martín, Gustavo Ortiz-Díez, Ana Judith Perisé-Barrios.	Vet Sci . 2022 Jun 9;9(6):285	10.3390/vetsci9060285.	2,51	Q2
Safety and efficay of an oncolytic virus as immunotherapy for canine patients.	Clara Martín-Carrasco, Pablo Delgado-Bonet, Beatriz Davinia Tomeo-Martín, Josep Pastor, Claudia De la Riva, Paula Palau-Concejo, Noemí Del Castillo, Javier García-Castro, Ana Judith Perisé-Barrios.	Vet Sci . 2022 9, 327.	10.3390/vetsci9070327	2,51	Q2
Tumor-Homing of Mesenchymal Stem Cells Infected with Oncolytic Virus in a Canine Patient.	Pablo Delgado-Bonet, Beatriz Davinia Tomeo-Martín, Gustazo Ortiz, Ana Judith Perisé-Barrios.	Vet Sci . 2022 9 (6), 285	10.3390/vetsci9060285	2,51	Q2
Xanthinuria secondary to allopurinol treatment in dogs with leishmaniosis: Current perspectives of the Iberian veterinary community.	Jesus Laura, Carolina Arenas, Marina Dominguez-Ruiz, Paolo Silvestrini, Ryane Englar, Xavier Roura, Rodolfo Olivera Leal.	Comp Immunol Microbiol Infect Dis. 2022 Apr;83:101783.	10.1016/j.cimid.2022.101783	2,72	Q1
IVF/ICSI cumulative live birth rates per consumed oocyte remain comparable regardless of sperm DNA fragmentation by TUNEL.	Irene Hervás, Alberto Pacheco, Rocío Rivera-Egea, Maria Gil, Julia Ana Navarro-Gomezlechon, Nicolás Garrido.	Reproductive BioMedicine Online 2022 ,44 (6): 1079-1089	doi.org/10.1016/j.rbmo.2022.02.010	3,82	Q1

[1] Impact Factor [2] Quartile

Title	Researchers	Journal	DOI	IF[1]	Q[2]
Serum anti-GM2 and anti-GalNAc-GD1a IgG antibodies are biomarkers for acute canine polyradiculoneuritis.	S. K. Halstead, D. S. Gourlay, J. Penderis, E. Bianchi, M. Dondi, A. Wessmann, M. Musteata, M. Le Chevoir, L. Martinez-Anton, S. F. M. Bhatti, H. Volk, I. Mateo, A. Tipold, E. Ives, A. Pakozdy, R. Gutierrez-Quintana, J. Brocal, Z. Whitehead, N. Granger, P. Pazzi, T. Harcourt-Brown, R. José-López, S. Rupp, H. C. Schenk, P. Smith, G. Gandini, M. Menchetti, V. Mortera-Balsa, C. Rusbridge, A. Tauro, F. Cozzi, M. Deutschland, F. Tirrito, P. Freeman, M. Lowrie, M. R. Jackson, H. J. Willison, A. Rupp.	J Small Anim Pract. 2022 63(2):104-112	doi.org/10.1111/jsap.13439	1,41	Q2
Intracranial Virotherapy for a Canine Hemangioma.	Pablo Delgado-Bonet, Beatriz Davinia Tomeo-Martín, Blanca Delgado-Bonet , David Sardón-Ruiz, Angel Torrado-Carvajal , Isidro Mateo, Ana Judith Perisé-Barrios.	Int J Mol Sci. 2022 Oct 2;23(19):11677.	10.3390/ijms231911677	6,20	Q2
Systemic cellular viroimmunotherapy for canine high-grade gliomas	Ana Cloquell, Isidro Mateo, Stefano Gambera, Martí Pumarola, Ramon Alemany, Javier García-Castro, Ana Judith Perisé-Barrios	Journal for ImmunoTherapy of Cancer 2022		12,47	Q1
Influence of prolactin secretion changes on sperm head size and freezability in ibex and mouflon.	Bóveda P, Velázquez R, Martínez-Fresneda L, Mejía O, Oteo M, Toledano-Díaz A, Castaño C, Esteso MC, Ungerfeld R, López-Sebastián A, Santiago-Moreno J.	Biopreserv Biobank. 2022 Jun 8.	10.1089/bio.2021.0129	2,25	Q2
Sustainable livestock systems for high-producing animals.	Simões J., Moran D., Edwards S., Bonnet C., Lopez-Sebastian A., Chemineau P.	Animal. 15. Dec 2021	10.1016/j.animal.2021.100371	3,23	Q1
Draft Genome Sequence of Lactococcus lactis Subsp. cremoris WA2-67: A Promising Nisin-Producing Probiotic Strain Isolated from the Rearing Environment of a Spanish Rainbow Trout (Oncorhynchus mykiss, Walbaum) Farm.	Feito, J. Contente, D. Ponce-Alonso, M. Díaz-Formoso, L. Araújo, C. Peña, N. Borrero, J. Gómez-Sala, B. Del Campo, R. Muñoz-Atienza, E. Hernández, P.E. Cintas, L.M.	Microorganisms, 10, 3 (2022)	10.3390/microorganisms10030521	3,8	Q2

[1] Impact Factor [2] Quartile

Annex 1. Teaching during the COVID-19 pandemic

Live online lectures and seminars were taught throughout the degree through the Blackboard Collaborate platform. A weekly class schedule was established for each academic year that it was began the week following confinement. These online activities were recorded and posted on the virtual campus so that they could be consulted by the students at any time. During the teaching sessions, the questions of the students who attended online were resolved through chat. The doubts of the students were also answered through the messaging service or by email, and an independent Collaborate room was established as "a room for doubts" with a schedule established on the virtual campus.

In addition to teaching sessions, this platform allowed different activities to be carried out, such as the presentation and discussion of clinical cases (with the presentation of anamnesis, blood tests, urinalysis, electrocardiograms, x-rays...) or practical exercises solved and to be solved it. Through Blackboard Collaborate, students made oral presentations of work, clinical cases or presentation of reports (which were carried out with the help of templates), and debate was encouraged through the exhibition of material, such as x-rays or images, to help clarify theoretical aspects. Student's teams worked using Microsoft or Google collaborative work tools (such as work on breeds of different species in ethnology or a review work in physiology).

As material for carrying out individual student work, research articles accompanied by scripts with questions and clinical case articles that included practical clinical topics for students to read were used. The clinical cases were also worked on individually, the students sent a word document with their answers and these cases were resolved using a test-type format in Moodle, which we will discuss later, or through a video that the teacher recorded using a visual support (Power point) with integrated audio. This format was also used as a Flipped classroom instead of live online lectures.

In addition to recording these types of videos, YouTube channels were also created in different subjects (such as anesthesiology or surgery) where video tutorials were uploaded with explanations of the most common practical clinical procedures (for example, how to flush an intravenous line or how to prepare the material before anesthesia) and small animal surgeries, which the student had to visualize before the lectures (following the flipped classroom methodology). In anatomy, the video tutorials were aimed at carrying out the dissection of the musculature of a rabbit, since the students could buy a whole, eviscerated and skinless rabbit in the supermarket (something possible to achieve even during the confinement in Spain).

Specific and informative videos from YouTube and other library platforms were also made available to students in subjects such as immunology or animal production.

It was used to update and expand the image bank. For example, on macroscopic and microscopic lesions, in histology and pathology, and on breeds in ethology for reviews, identification and study. Students were also encouraged to search for images on the internet that were later discussed through the consultation room and messaging, inviting them to make consultations, and even to take photos of their dogs and cats to assess the body condition of their pets in animal nutrition.

Links to relevant websites or webs of interest were made available to students to support the practical part, as well as to blogs made by some teachers (https://nutricionanimal360.blogspot.com/)

The videos, images and links allowed the preparation of practice notebooks by the students, as is the case of general pathology notebook that was evaluated through a TASK on the virtual campus, or to support the practice notebook for clinical subjects, which include the competences that students must achieve, through the videos and presentation of real clinical cases that arrived at the UAX Veterinary Teaching Hospital (UAX-VTH) at that time.

A significant effort was made in the compilation of all this digital teaching material to reinforce the practical part. In some subjects, "teaching material diagrams" were posted in the virtual classroom, which was updated weekly, to facilitate their location and to make efficient use of the resources.

It is worth noting the use of the specific software, PhysioEx in physiology, together with a practice script. In anesthesiology, thanks to the Reassessment Campaign on Veterinary Resuscitation (RECOVER) Initiative, all students of fourth and fifth year were able to enroll completely free of charge in online Cardiopulmonary resuscitation (CPR) courses by RECOVER.

All these activities were evaluated in different ways through questionnaires. Kahoot! or Socrative were carried out during classes, self-assessment tests with questionnaires in Moodle (as mentioned above) or through Google Forms. These quizzes included calculation exercises in the subjects of anesthesiology or animal nutrition (later, videos were posted in which the exercises were solved).

For the official evaluations, the exams were carried out following the university regulations through Moodle with Respondus® LockDown Browser program for securing online exams in classrooms or proctored environments.

Along with the teaching activity, a weekly session of direct contact with the students was established. These weekly meetings were held in the format of an assembly with the aim of motivating them and maintaining the necessary tension in them for the study. There was a meeting per year of program with a professor who was assigned by the Dean. Its result was very positive because it allowed for relaxed conversations and the students freely expressed their fears in the face of the uncertainty of the situation in those days, thus generating a greater confidence and motivating them.

The academic staff maintained daily contact with Dean throughout this period to report on the activities carried out and request instructions in case they needed support from the FV or the UAX University.

In February 2021, with the start of the second semester, face-to-face classes were resumed in the university classrooms. Capacity was reduced to 50% through a hybrid class system, so that lectures could be followed in person and online simultaneously. The recordings were kept on the virtual campus. The groups of practices, specifically those of the hospital, became smaller to reduce the capacity. The possibility of recovering the propaedeutic practices was offered, which were recovered for two weeks in September 2020, with a reduced number of students per group to respect the covid rules (10 students per group and carried out outdoors). The possibility of attending visits to livestock farms and other centers, such as the Navas del Rey Teaching Farm, was also offered to all students who so wished, establishing small groups for this and maintaining adequate sanitary measures such as the use of masks and disinfection of hands with hydroalcoholic liquid before accessing each farm.

PhD Veterinary Health Program during the COVID-19 pandemic

The report for the approval of the PhD program was delivered on December 3, 2019. On December 19, 2019, the first response was obtained on the evaluation of the Autonomic Quality Agency (Fundación para el Conocimiento Madri+d) of the PhD program, who requesting certain changes. The suggested changes were made and the report was resubmitted. On February 24, 2020, Fundación para el Conocimiento Madri+d requests new changes, after making the suggested changes and the report was sent again. Finally, on April 17, 2020, the approval of the PhD program report was obtained. Due to the pandemic situation, the official start of the first promotion of the UAX PhD Veterinary Health Program (PDSV) did not begin until February 2021. In September 2021 the second promotion of PDSV began.

Research during the COVID-19 pandemic

In September 2019, the call for annual research projects by the UAX Foundation was published. In this call, 6 veterinary projects were financed. In January 2020, the call for three-year research projects by the UAX Foundation was published, through which 4 veterinary projects were financed.

During the confinement period, the UAX-VTH laboratory was closed. Most of the research projects were stopped. On April 20, 2020, the UAX Foundation published a specific call for research projects related to COVID, two veterinary projects were financed.

In September 2020, the Community of Madrid accepted funding for the veterinary project: "Study of biological samples from dogs with severe respiratory symptoms, potentially associated with exposure to the SARS-CoV-2 virus." Due to the UAX-VTH laboratory was closed, the RT-qPCR studies of those months were carried out with a collaborator, in a German laboratory (Laboklin GmbH).

The UAX Foundation did not publish any calls for projects in 2020 and the completion date of all the projects in progress were delayed by one year. Likewise, all entities financing external projects what we collaborate with increased the closing dates of the projects, extending their end by 6-12 months.

Annex 2. Educational Cooperation Agreement

CONVENIO DE COOPERACIÓN EDUCATIVA ENTRE LA UNIVERSIDAD ALFONSO X EL SABIO Y …

En Villanueva de la Cañada, a 12 de marzo de 2022

REUNIDOS

De una parte, Dña. …, en nombre y representación de … (en adelante La ENTIDAD COLABORADORA), con CIF …, con domicilio en … y con dirección de correo electrónico para remitir notificaciones e informaciones sobre el presente convenio XXX@XXX.

De otra parte, la Excma. Sra. Dña. ANA ISABEL FERNÁNDEZ MARTÍNEZ, Rectora Magnífica, de la Universidad Alfonso X el Sabio, (en adelante la UAX), reconocida por Ley 9/1993, de 19 de Abril, con domicilio en Avenida de la Universidad nº 1, 28691 de Villanueva de la Cañada (MADRID) y con dirección de correo electrónico para remitir notificaciones e informaciones sobre el presente convenio convenios@uax.es.

EXPONEN

1º Que La ENTIDAD COLABORADORA es una empresa en el sector …, sita en …, que está interesada en colaborar con la UAX poniendo, sin contraprestaciones económicas, los medios humanos y materiales para la docencia prevista en el Plan de Estudios del Grado y Máster en … de la UAX y/o para la realización de prácticas externas curriculares, extracurriculares, que se concretarán en al ANEXO correspondiente.

2º Que la UAX, en consideración a los principios de actuación que tiene establecidos en el Art. 2 de sus Normas de Organización y Funcionamiento,

EDUCATIONAL COOPERATION AGREEMENT BETWEEN ALFONSO X EL SABIO UNIVERSITY AND …

Villanueva de la Cañada, 12 march 2022

BY AND BETWEEN

To one part, Mr./Mrs./Ms. …, on behalf of and representing… (hereinafter, THE COLLABORATING ENTITY), with Corporate Tax Code…, and registered office in… and with an e-mail address for sending notifications and information on this agreement XXX@XXX.

To the other part, Ms. ANA ISABEL FERNÁNDEZ MARTÍNEZ , Rector of Alfonso X el Sabio University (hereinafter, UAX), recognised under Law 9/1993, of 19 April, with registered seat at Villanueva de la Cañada, Avenida de la Universidad, 1 and with an e-mail address for sending notifications and information on this agreement convenios@uax.es.

RECITAL

1. Whereas THE COLLABORATING ENTITY is a … sector company, located in… and wishes to cooperate with UAX by provision, for no financial consideration, of the human and material resources of the former for planned teaching purposes, with preference, as part of the UAX … Degree Study Plan and/or for carrying out external placements both as part of the curriculum and extracurricular, as specified in the corresponding SCHEDULE.

2. Whereas UAX, bearing in mind the action principles duly established in Article 2 of the UAX

valora muy positivamente las iniciativas orientadas a la creación de vínculos de colaboración con entidades para fomentar las relaciones e intensificar la colaboración en materias y ámbitos de interés común.

3º Que la UAX está interesada en utilizar los medios humanos y materiales de La ENTIDAD COLABORADORA para la docencia prevista en su Plan de Estudios oficial del Grado en … de la UAX y Estudios de Máster de la UAX para la realización de prácticas externas curriculares y extracurriculares que se concretarán en el Anexo correspondiente.

4º Que las partes se reconocen mutua y recíprocamente la capacidad necesaria para otorgar este

CONVENIO DE COOPERACIÓN EDUCATIVA

Por medio del cual y al amparo de lo dispuesto en la normativa vigente por el que se regulan las prácticas académicas externas de los estudiantes universitarios, se establece el marco de las relaciones entre las instituciones para la realización de las prácticas externas curriculares y/o extracurriculares de los estudiantes de Grado y Máster, en las instalaciones de La ENTIDAD COLABORADORA y lo suscriben con arreglo a las siguientes

ESTIPULACIONES

PRIMERA

La ENTIDAD COLABORADORA permitirá a la UAX que los estudiantes realicen las prácticas propias de su titulación y/o extracurriculares en las instalaciones de aquélla sitas en … a cuyo solo efecto la primera autoriza a la segunda, que acepta, la utilización de las instalaciones necesarias para las referidas prácticas.

En virtud del presente Convenio, en los términos que a continuación se establecen La ENTIDAD COLABORADORA adquiere la condición de

Organisation and Operation Regulations, places a very high value on initiatives intended to create collaborative ties with legal entities in order to foster relations and increase cooperation in relation to subjects and areas of common interest.

3. Whereas UAX wish to use the human and material resources of THE COLLABORATING ENTITY for planned teaching purposes and on a preferential basis, within the UAX official … Degree Study Plan and UAX Master Study Programme for carrying out external placements both as part of the curriculum and extracurricular, as specified in the corresponding Schedule.

4. Whereas the Parties hereto mutually acknowledge each other as having due legal capacity to execute this

EDUCATIONAL COOPERATION AGREEMENT

By means of which and under the scope of the provisions established in current legislation (Real Decreto 592/2014, de 11 de julio, por el que se regulan las prácticas académicas externas de los estudiantes universitarios), in force governing external academic practice for university students, the framework is hereby established for the relationship between the institutions to carry out curricular and/or extracurricular external placements for Physiotherapy Students, at the facilities of THE COLLABORATING ENTITY where the parties enter into this agreement pursuant to the following

STIPULATIONS

ONE

THE COLLABORATING ENTITY herein agrees to allow UAX to place Degree students for the purpose of carrying out the practical studies forming part of their degree requirements and/or extracurricular requirements at facilities pertaining to the former and located at …, wherefore the former authorises the latter, only for this purpose with the latter agreeing, to use the necessary facilities for the aforesaid practical studies.

"ENTIDAD COLABORADORA CON LA UNIVERSIDAD ALFONSO X EL SABIO durante la vigencia del mismo.

SEGUNDA

El presente Convenio tendrá una duración de un AÑO (1), desde el 2021 hasta el 2022, entendiéndose prorrogado por años académicos si ninguna de las partes notifica fehacientemente a la otra lo contrario con dos (2) meses de antelación a la fecha de su pérdida de vigencia. A efectos de este Convenio se entiende por año académico el que trascurre entre el primero de septiembre de cada año y el 30 de agosto del año siguiente. La pérdida de vigor del presente Convenio surtirá sus efectos a medida que los estudiantes asignados a prácticas en La ENTIDAD COLABORADORA finalicen sus estudios de Grado, de acuerdo con la duración legalmente prevista para los mismos.

La UAX y La ENTIDAD COLABORADORA podrá rescindir anticipadamente el presente Convenio en caso de incumplimiento notorio y grave de sus estipulaciones, siempre y cuando se haya notificado fehacientemente la denuncia con un (1) mes de antelación. En todo caso, las partes se comprometen a garantizar el cumplimiento integro del periodo de prácticas de los estudiantes asignados que ya hubiere comenzado en el momento de la denuncia.

TERCERA

El personal de La ENTIDAD COLABORADORA desarrollará su colaboración con la UAX durante los periodos lectivos que se establezcan por el Rector para cada año académico, sin perjuicio de su trabajo ordinario en La ENTIDAD COLABORADORA.

CUARTA

La colaboración con la UAX del personal de la plantilla de La ENTIDAD COLABORADORA se realizará de acuerdo con las previsiones contenidas en la programación anual de prácticas a la que se refiere la estipulación sexta más abajo

By virtue of this Agreement, and according to the terms and conditions established here below, THE COLLABORATING ENTITY shall acquire official consideration as "LEGAL ENTITY COLLABORATING WITH ALFONSO X EL SABIO UNIVERSITY throughout the period that this agreement remains in force.

TWO

This Agreement will remain in force for a period of one (1) YEAR from 2021 to 2022, and shall be deemed tacitly extended for each subsequent academic year if neither party informs the other by authenticated means that it does not wish to continue with the Agreement, duly providing two (2) months' notice to the other party prior to the next expiry date. For the purposes of this Agreement, an Academic Year is deemed to be the annual period between the first of September of any given year and 30th August of the following year. Expiry of this Agreement shall become effective as and when the students assigned to carry out practical placements at …….. conclude their Degree studies, in accordance with the legally established duration in that regard.

Either UAX or THE COLLABORATING ENTITY may terminate this Agreement early in the event of serious and known breach of the stipulations set out herein, as long as the complaint in that regard is provided by authenticated means at least one (1) month in advance. At all events, the parties undertake to guarantee full performance of the practice period for assigned students that have already commenced their practical placement at the time of the complaint.

THREE

Personnel from THE COLLABORATING ENTITY will collaborate with UAX during the study periods established by the Rector for each academic year, without prejudice to their ordinary work at THE COLLABORATING ENTITY.

desarrollada. Además, los titulados superiores de La ENTIDAD COLABORADORA tendrán opción preferente, en el caso de que la planificación docente anual lo permita, para la impartición de las clases teóricas y prácticas del Plan de Estudios oficial de Grado de la UAX y Máster de la UAX.

QUINTA

La ENTIDAD COLABORADORA queda eximida de cualquier tipo de responsabilidad laboral respecto de los mencionados estudiantes cuyas prácticas tiene la consideración exclusiva de académicas. En consecuencia, no quedan establecidas en ningún caso relaciones laborales o de servicios entre los estudiantes y La ENTIDAD COLABORADORA.

Los estudiantes en prácticas disfrutarán durante la realización de aquéllas del régimen de permisos que se detalla a continuación:

- los días declarados como no lectivos, según el calendario académico aprobado por la UAX para cada curso académico; dicho calendario será comunicado por la UAX a La ENTIDAD COLABORADORA al comienzo de cada curso académico;
- el tiempo necesario para la realización de ejercicios o pruebas de evaluación de las asignaturas en las que estuvieren matriculados;
- el tiempo necesario para la realización de las tareas representación y/o participación, previa comunicación por parte del estudiante con antelación suficiente a La ENTIDAD COLABORADORA;
- cualquier otro permiso fijado por la normativa vigente.

Los mayores de 28 años y los estudiantes que realicen prácticas en el extranjero, a los que no cubre el seguro escolar, deberán suscribir una póliza de accidentes.

FOUR

Collaboration between UAX and personnel on the THE COLLABORATING ENTITY staff must be carried out pursuant to the provisions established in the annual practical placement programme as set out in Stipulation Six developed below. Additionally, qualified postgraduates will be given priority, if the annual teaching plan permits, for giving theory and practical classes within the official UAX Degree and Master Study Plan.

FIVE

THE COLLABORATING ENTITY is exempt from any employment liability concerning the aforementioned students, whose practical work is exclusively deemed to be academic. Therefore, no employment relationship or service relationship is established between the students and THE COLLABORATING ENTITY.

Students on practical placement shall be entitled to the following days off whilst carrying out their placement:

- Days declared as not forming part of term time, as set out on the academic calendar drawn up by UAX for each academic year. UAX will provide THE COLLABORATING ENTITY with the academic calendar dates at the beginning of each academic year;
- time as necessary to carry out exercises or evaluation tests for subjects the students have signed up to;
- time as necessary to carry out any tasks as representatives and/or participants, with prior notification by the student providing sufficient advance notice to THE COLLABORATING ENTITY;
- Any other day off established by current legislation in force.

Durante la vigencia del presente Convenio, además, los estudiantes en prácticas deberán mantener en vigor una póliza de seguro que cubra los riesgos y responsabilidades de toda índole que puedan derivarse de las acciones u omisiones cometidas durante la realización de las prácticas, así como los riesgos que para ellos puedan derivarse de su presencia y actividades en las mismas.

SEXTA

Los estudiantes de la UAX que realicen sus prácticas en La ENTIDAD COLABORADORA habrán de someterse a las reglas de funcionamiento y disciplina de ésta, además de las que tenga establecidas aquélla. La ENTIDAD COLABORADORA informará a los estudiantes en prácticas sobre la normativa de seguridad y prevención de riesgos laborales.

Los eventuales conflictos surgidos en el desarrollo de las prácticas se resolverán en el seno de una comisión mixta paritaria, cuyos miembros serán nombrados a tal efecto por las partes firmantes del presente convenio.

Con el fin de no entorpecer el normal desenvolvimiento de las tareas que se llevan a cabo en La ENTIDAD COLABORADORA donde se establece su período de prácticas, la UAX acordará con la Dirección de La ENTIDAD COLABORADORA antes del comienzo de cada curso, una programación de las prácticas a realizar, especificando mediante un anexo sus objetivos, contenidos, actividades concretas, calendario, contenido del informe final del tutor de prácticas, relación de los responsables de las mismas y formas de cooperación de los profesionales de La ENTIDAD COLABORADORA.

El proyecto formativo en que se concreta la realización de la práctica académica externa tendrá los objetivos educativos básicos que se fijen en el Anexo correspondiente.

Las actividades fundamentales a desarrollar serán las que se fijen en el Anexo correspondiente.

Persons over the age of 28 and students carrying out their practical placement abroad and no longer covered by academic insurance must take out an insurance policy to cover any accidents.

Furthermore, and throughout the period that this Agreement remains in force, students on practical placements must keep an insurance policy in force covering risks and liabilities of all kinds that may arise from any actions or omissions in the course of carrying out the practical placement, as well as cover for any risks that may arise as a result of their presence or attendance at such activities.

SIX

UAX students carrying out their practical placement at THE COLLABORATING ENTITY must comply with the internal operation and discipline rules in place, in addition to those established by UAX. THE COLLABORATING ENTITY must inform students on practical placements with regard to safety regulations and rules on prevention of risks at work.

Any disputes that may arise as a result of carrying out practical placements must be resolved by a mixed and fair committee, with members appointed for the purpose by the parties signing to this agreement.

In order not to interfere with the usual tasks performed at THE COLLABORATING ENTITY, where the practical placement is established, UAX and the THE COLLABORATING ENTITY Management body must agree a schedule of practical courses to be carried out prior to the start of each academic year. The objectives, content, specific activities, schedule, final report content from Practical Tutor, list of persons in charge and type of collaboration with professionals from THE COLLABORATING ENTITY will be set out in a separate Appendix document.

The training project specifying the academic practical work to be carried out externally shall have the basic educational objectives established in the corresponding Appendix.

En todo caso, los objetivos se establecerán considerando las competencias básicas, genéricas y/o específicas que debe adquirir el estudiante. Asimismo los contenidos de la práctica se definirán de modo que tengan una relación directa con las competencias a adquirir con los estudios de Grado o Máster correspondientes.

La ENTIDAD COLABORADORA proporcionará a los estudiantes un informe con mención expresa de la actividad desarrollada y su duración.

SÉPTIMA

De acuerdo con el Rector de la UAX, la Dirección de La ENTIDAD COLABORADORA designará de entre el personal de su plantilla a un tutor de prácticas, quien participará en la elaboración de la programación anual antes referida y velará por el adecuado desarrollo de aquellas prácticas dentro del Centro. Serán además sus funciones:

- Supervisar a los estudiantes que realicen actividades en las instalaciones de La ENTIDAD COLABORADORA;
- colaborar en la evaluación del conocimiento y la dedicación de dichos estudiantes;
- realizar y remitir a la UAX el informe final, a la conclusión de las prácticas;
- participar en la organización del contenido científico de los cursos y seminarios;
- proponer a la UAX la asistencia de profesores invitados y conferenciantes; y
- vigilar y evaluar el contenido de los programas de investigación en las titulaciones superiores de la UAX relacionadas con el campo de actividad de La ENTIDAD COLABORADORA.

La UAX reconocerá al tutor de prácticas la actividad realizada mediante la expedición de la correspondiente certificación.

The basic activities to be carried out shall be as established in the corresponding Appendix.

At all events, objectives will be established bearing in mind basic, generic and/or specific competences that the student must acquire. Equally, the content of practical placements must be defined in such a manner so as to have direct relation with the competences as required for the corresponding Degree or Masters studies.

THE COLLABORATING ENTITY must provide the students with a report expressly mentioning the activity carried on and duration.

SEVEN

By agreement with the UAX Rector, the Management of THE COLLABORATING ENTITY shall designate a tutor for practical placements from among personnel on the THE COLLABORATING ENTITY Staff. The aforesaid tutor will take part in preparing the aforementioned annual programme and must check to ensure that practical placements are carried out in an adequate manner at the Workplace. The tutor is also responsible for the following tasks:

- supervising students carrying out activities at the facilities of THE COLLABORATING ENTITY;
- helping to evaluate the knowledge and dedication of those students;
- drawing up the final report at the end of the practical placement period and forwarding that report to UAX;
- helping to organise the scientific content of courses and seminars;
- proposing the attendance of invited professors and conference speakers to UAX and

OCTAVA

La UAX coadyuvará directamente a la formación de los profesionales que colaboren en el desarrollo de las prácticas, a través de jornadas, seminarios y otras actividades académicas relacionadas con las materias sobre las que versan dichas prácticas.

Igualmente, los referidos profesionales gozarán de preferencia en el acceso a los Cursos de Postgrado que, en el ámbito de veterinaria, sean organizados por la UAX. La UAX pone su Biblioteca a disposición de los profesionales de La ENTIDAD COLABORADORA.

NOVENA

La UAX expedirá certificación de su labor académica a los profesionales de La ENTIDAD COLABORADORA que colaboren en la realización de las prácticas a que se refiere el presente Convenio.

Igualmente, los referidos profesionales de La ENTIDAD COLABORADORA y por su sola colaboración en las prácticas con la UAX, tendrán la consideración de profesores de la UAX, de carácter honorario.

Ambas instituciones podrán aludir en sus folletos informativos, documentación, impresos, página web, etc., a la otra parte como "Entidad Colaboradora" pudiendo utilizar asimismo su denominación o signos distintivos.

DÉCIMA

Para la correcta ejecución del presente Convenio de Cooperación Educativa, así como para la realización de las prácticas externas, La ENTIDAD COLABORADORA tratará necesariamente datos personales referidos al estudiante en prácticas. Dependiendo del tipo de datos y de las finalidades del tratamiento, los datos personales serán tratados en unos casos por La ENTIDAD COLABORADORA como Responsable de Tratamiento mientras que, en otros casos, La ENTIDAD COLABORADORA asumirá la posición de Encargado de Tratamiento de UAX.

- monitoring and evaluating the content of research programmes for postgraduate qualifications offered by UAX in relation to the field of THE COLLABORATING ENTITY.

EIGHT

UAX herein agrees that it will directly help and train professionals involved in developing the practical placements, by means of training days, seminars and other academic activities in relation to the subjects that will be dealt with in the practical placements.

Furthermore, the aforesaid professionals will be given priority for taking part in any Postgraduate Courses that may be organised by UAX in the field of … studies. UAX herein agrees to make its Library available to those THE COLLABORATING ENTITY professionals who assist with the practical placements.

NINE

UAX will issue certificates confirming the academic tasks carried out by THE COLLABORATING ENTITY professionals who assist with the practical placements referred to in this Agreement.

Equally, the aforesaid THE COLLABORATING ENTITY professionals may, simply as a result of collaborating with UAX on these practical placements, be termed as honorary UAX professors.

Both institutions may refer in their informative leaflets, documents, printed materials, website, etc. to the other party as a "Collaborating Entity" and may equally make use of the official name and distinctive marks of the other party.

DÉCIMA

For the correct execution of this Educational Cooperation Agreement, as well as for the performance of the external internship, the THE COLLABORATING ENTITY will necessarily process personal data relating to the student on the

1º Tratamientos en que La ENTIDAD COLABORADORA asumirá la posición de Responsable del tratamiento:

La ENTIDAD COLABORADORA tratará los datos personales del estudiante en prácticas en calidad de Responsable del tratamiento en aquellos casos en los que la finalidad no sea académica, sino vinculada a la actividad empresarial; por ejemplo, control de acceso a las instalaciones, sistema de videovigilancia, gestión de las obligaciones en materia de seguridad social, pago de bolsa o ayuda al estudio, normas de seguridad del sistema de información en la entidad colaboradora, prevención de riesgos laborales, etc.

Asimismo, en su caso, La ENTIDAD COLABORADORA tendrá la consideración de Responsable respecto de otros datos de carácter personal recabados de manera directa del estudiante con otros posibles fines ajenos a las prácticas externas.

Como Responsable de Tratamiento, La ENTIDAD COLABORADORA habrá de informar al estudiante en prácticas de acuerdo con lo dispuesto en el artículo 13 del Reglamento (UE) 2016/679 del Parlamento Europeo y del Consejo, de 27 de abril de 2016, General de Protección de Datos (RGPD).

La ENTIDAD COLABORADORA se compromete a implantar las medidas de seguridad necesarias para garantizar la confidencialidad, integridad, disponibilidad y resiliencia permanentes de los sistemas y servicios de tratamiento de los datos personales, a fin de evitar la pérdida, borrado o destrucción de los datos y el acceso indebido o no autorizado a los mismos.

2º Tratamientos en que La ENTIDAD COLABORADORA asumirá la posición de Encargado del tratamiento:

Como Encargado de Tratamiento, La ENTIDAD COLABORADORA tratará datos de carácter personal del estudiante en prácticas con fines estrictamente académicos; por ejemplo, para internship. Depending on the type of data and the purposes of the processing, the personal data will be processed in some cases by THE COLLABORATING ENTITY as Data Controller while, in other cases, THE COLLABORATING ENTITY will assume the position of Data Processor of UAX.

1. Processing in which the THE COLLABORATING ENTITY will assume the position of Data Controller:

The COLLABORATING ENTITY will process the personal data of the internship student as Data Controller in those cases in which the purpose is not academic, but linked to the business activity; for example, access control to the facilities, video surveillance system, management of social security obligations, payment of scholarship or study grants, information system security standards in the collaborating entity, occupational risk prevention, etc.

Likewise, if applicable, THE COLLABORATING ENTITY will be considered the Data Controller with regard to other personal data collected directly from the student for other possible purposes unrelated to the external placement.

As the Data Controller, THE COLLABORATING ENTITY shall inform the internship student in accordance with the provisions of Article 13 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, General Data Protection Regulation (GDPR).

The COLLABORATING ENTITY undertakes to implement the necessary security measures to ensure the permanent confidentiality, integrity, availability and resilience of the systems and services for processing personal data, in order to prevent the loss, deletion or destruction of data and improper or unauthorised access to them.

la elaboración del informe final de prácticas, evaluación del alumno por el tutor, etc. En ningún caso La ENTIDAD COLABORADORA podrá utilizar estos datos para fines propios.

En concreto, como Encargado de Tratamiento, La ENTIDAD COLABORADORA podrá tener acceso a:

- Datos identificativos directos y datos de contacto (nombre y apellidos, DNI, correo electrónico, dirección postal, teléfono).
- Datos académicos (titulación, curso, informe final de prácticas).

De acuerdo con lo dispuesto en el artículo 28 RGPD, La ENTIDAD COLABORADORA se compromete al cumplimiento de las siguientes obligaciones en relación con el Encargo de tratamiento:

a) Tratar los datos personales únicamente siguiendo instrucciones documentadas del Responsable, inclusive con respecto a las transferencias de datos personales a un tercer país o una organización internacional, salvo que esté obligado a ello en virtud del Derecho de la Unión o de los Estados miembros que se aplique al Encargado; en tal caso, el Encargado informará al Responsable de esa exigencia legal previa al tratamiento, salvo que tal Derecho lo prohíba por razones importantes de interés público.

b) Garantizar que las personas autorizadas para tratar datos personales se hayan comprometido a respetar la confidencialidad o estén sujetas a una obligación de confidencialidad de naturaleza estatutaria.

c) Tomar todas las medidas necesarias de conformidad con el artículo 32 RGPD; es decir, teniendo en cuenta el estado de la técnica, los costes de aplicación, la naturaleza, el alcance, el contexto y los fines del tratamiento, así como riesgos de probabilidad y gravedad variables para los derechos y libertades de las personas físicas, el Responsable

2. Processing in which THE COLLABORATING ENTITY will assume the position of Data Processor:

As Data Processor, THE COLLABORATING ENTITY will process personal data of the student intern for strictly academic purposes; for example, for the preparation of the final internship report, assessment of the student by the tutor, etc. Under no circumstances may the PARTNER use this data for its own purposes.

Specifically, as Data Processor, THE COLLABORATING ENTITY may have access to:

- Direct identification data and contact details (name and surname, ID card number, email address, postal address, telephone number).
- Academic data (degree, course, final internship report).

In accordance with the provisions of article 28 of the RGPD, the COLLABORATING ENTITY undertakes to comply with the following obligations in relation to the Data Processor:

a) To Process Personal Data only on documented instructions from the Controller, including with respect to transfers of Personal Data to a third country or an international organisation, unless obliged to do so under Union or Member State law applicable to the Processor; in such case, the Processor shall inform the Controller of such legal requirement prior to processing, unless such law prohibits it for important reasons of public interest.

b) ensure that the persons authorised to process personal data have undertaken to respect confidentiality or are subject to a statutory confidentiality obligation

c) Take all necessary measures in accordance with Article 32 GDPR; i.e. taking into account the state of the art, the costs of implementation, the nature, scope, context and purposes of the processing,

y el Encargado del Tratamiento aplicarán medidas técnicas y organizativas apropiadas para garantizar un nivel de seguridad adecuado al riesgo, que en su caso incluya, entre otros:

- La seudonimización y el cifrado de datos personales.
- La capacidad de garantizar la confidencialidad, integridad, disponibilidad y resiliencia permanentes de los sistemas y servicios de tratamiento.
- La capacidad de restaurar la disponibilidad y el acceso a los datos personales de forma rápida en caso de incidente físico o técnico.
- Un proceso de verificación, evaluación y valoración regulares de la eficacia de las medidas técnicas y organizativas para garantizar la seguridad del tratamiento.

d) Cuando La ENTIDAD COLABORADORA recurra a otro Encargado de Tratamiento para subcontratar determinadas tareas vinculadas al encargo de tratamiento, se impondrán a este otro "subencargado" las mismas obligaciones en materia de protección de datos personales que se incluyen en la presente estipulación. Si el "subencargado" incumpliera estas obligaciones, el Encargado inicial responderá plenamente ante el Responsable de Tratamiento.

e) Teniendo cuenta la naturaleza del tratamiento, asistir al Responsable siempre que sea posible, para que este pueda cumplir con su obligación de responder a las solicitudes que tengan por objeto el ejercicio de los derechos de los interesados. Si el estudiante en prácticas ejerciera tales derechos directamente ante el Encargado, este debe comunicarlo a la mayor brevedad posible mediante correo electrónico dirigido a: lopd@uax.es

f) Teniendo en cuenta la naturaleza del tratamiento y la información a disposición del Encargado, ayudar al Responsable a colaborar en la notificación de las violaciones de datos personales. En este sentido,

as well as risks of varying likelihood and severity to the rights and freedoms of natural persons, the Controller and the Processor shall implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk, including, where appropriate, inter alia:

- Pseudonymisation and encryption of personal data.
- The ability to ensure the continued confidentiality, integrity, availability and resilience of the processing systems and services.
- The ability to restore availability and access to personal data quickly in the event of a physical or technical incident.
- A process of regular verification, evaluation and assessment of the effectiveness of technical and organisational measures to ensure the security of the processing.

d) When the COLLABORATING ENTITY uses another Processor to subcontract certain tasks related to the processing order, the same obligations regarding the protection of personal data included in this stipulation will be imposed on this other "sub-processor". Should the "sub-processor" fail to comply with these obligations, the initial Processor shall be fully liable to the Controller.

e) Taking into account the nature of the processing, assist the Controller, whenever possible, in order to enable the Controller to fulfil its obligation to respond to requests aimed at exercising the rights of data subjects. If the trainee exercises such rights directly with the Controller, he/she shall inform the latter as soon as possible by e-mail to: lopd@uax.es.

f) Taking into account the nature of the processing and the information available to the Processor, assist the Controller in collaborating in

el Encargado notificará a UAX las violaciones de seguridad de los datos personales a su cargo de las que tenga conocimiento, juntamente con toda la información relevante para la documentación y comunicación de la incidencia. Dicha notificación la realizará sin dilación indebida y, en todo caso, antes del plazo de 36h horas desde que fuera detectada, y a través de la dirección de correo electrónico siguiente: **lopd@uax.es**

Si no es posible facilitar la información simultáneamente, y en la medida en que no lo sea, la información se facilitará de manera gradual sin dilación indebida.

g) Teniendo en cuenta la naturaleza del tratamiento y la información a disposición del Encargado, colaborar con el Responsable para que éste pueda llevar a cabo correctamente las evaluaciones de impacto y consultas previas.

h) A elección del Responsable, suprimir o devolver todos los datos personales una vez finalice la prestación de los servicios de tratamiento, y suprimirá las copias existentes a menos que se requiera la conservación de los datos personales en virtud del Derecho de la Unión o de los Estados miembros.

i) Poner a disposición del Responsable toda la información necesaria para demostrar el cumplimiento de las obligaciones establecidas en materia de protección de datos personales, así como para permitir y contribuir a la realización de auditorías, incluidas inspecciones, por parte del responsable o de otro auditor autorizado por dicho responsable.

j) Llevar por escrito un registro de todas las categorías de actividades de tratamiento efectuadas por cuenta de UAX, que contenga: el nombre y los datos de contacto del Encargado y del Responsable, las categorías de tratamientos efectuados por cuenta del Responsable, las transferencias internacionales de datos, en su caso; y una descripción general de las medidas técnicas y organizativas de seguridad apropiadas que esté aplicando.

the notification of personal data breaches. In this regard, the Controller shall notify UAX of any personal data security breaches of which it becomes aware, together with all relevant information for the documentation and communication of the incident. Said notification shall be made without undue delay and, in any case, within 36 hours of its detection, via the following e-mail address: lopd@uax.es

If and to the extent that it is not possible to provide the information simultaneously, the information shall be provided in a gradual manner without undue delay.

g) Taking into account the nature of the processing and the information available to the Controller, cooperate with the Controller to enable the Controller to carry out impact assessments and prior consultations properly.

h) at the Controller's option, erase or return all personal data upon termination of the provision of the processing services, and erase existing copies unless the retention of personal data is required by Union or Member State law

i) make available to the Controller all information necessary to demonstrate compliance with its obligations regarding the protection of personal data and to allow and assist audits, including inspections, by the Controller or another auditor authorised by the Controller.

j) Keep a written record of all categories of processing activities carried out on behalf of UAX, containing: the name and contact details of the Processor and the Controller, the categories of processing carried out on behalf of the Controller, international data transfers, if any; and a general description of the appropriate technical and organisational security measures it is implementing.

DECIMOPRIMERA

En relación con los resultados, ya sean parciales o finales, de trabajos, informes, o documentos generados como consecuencia y dentro del ámbito exclusivo de las prácticas profesionales del estudiante (en adelante, los "Resultados"), La ENTIDAD COLABORADORA será considerada como titular de los mismos a efectos de la normativa de propiedad intelectual e industrial.

En la medida en que alguno de estos resultados sean patentables o registrables, La ENTIDAD COLABORADORA tendrá preferencia para solicitar el registro de las correspondientes patentes a los Registros de Propiedad u Oficinas de Patentes y Marcas, como titular de los mismos, apareciendo como inventores aquellos estudiantes que hayan llevado a cabo las investigaciones o desarrollos.

DECIMOSEGUNDA

Para cualquier cuestión derivada de la interpretación y cumplimiento del presente Convenio, las partes se someten, con renuncia a su propio fuero, a la jurisdicción y competencia de los Juzgados y Tribunales de la Villa de Madrid.

Leído y encontrado conforme, lo firman por duplicado ejemplar en el lugar y fecha arriba indicados.

POR LA UNIVERSIDAD ALFONSO X EL SABIO

Dña. Ana Isabel Fernández Martínez
Rectora

POR …

D./D.ª …

ELEVEN

In so far as any partial or final outcomes of works, reports or documents generated as a result of, and within the exclusive scope of, professional practice carried out by the student (hereinafter, the "Outcomes"), THE COLLABORATING ENTITY shall be deemed to hold the title to such outcomes for the purposes of intellectual and industrial property legislation.

To the extent that any such outcomes can be patented or registered, THE COLLABORATING ENTITY shall have preferential rights to request registration of the corresponding patents on the Property Registers or at Patents and Trademarks Offices, as having title thereto, where the students who carried out the investigation or development shall be named as inventors.

TWELVE

The parties hereto agree to submit to the jurisdiction and competence of the City of Madrid with regard to any matters of interpretation or fulfilment of this Agreement and waive any other jurisdiction to which they may be entitled.

In witness whereof, having duly read and agreed this document, the parties hereby sign duplicate copies at the place and on the date set out above.

FOR ALFONSO X EL SABIO UNIVERSITY

Ms. Ana Isabel Fernández Martínez
Rector

FOR …

Mr./Ms. …

Annex 3. Strategic and Operating Plan

Follow-up report July 2022								
INITIATIVE	**RESPONSIBLE STAFF MEMBER**	**OBJECTIVE**	**SCOPE**	**BEGGINING**	**END**	**IMPACT DATE**	**DEGREE OF PROGRESS**	**STATE**
VET_21/22_EAEVE ACREDITATION	Isabel Rodríguez	Achieve acreditation EAEVE 2023	undergraduate students	3/1/2021	3/1/2023	Jul-23	75%	3
VET_21/22_PARTNERSHIPS	Isabel Rodríguez / Jose Luis Rodríguez	Promote research and practical training opportunities	undergraduate students	3/1/2021	7/31/2022	sep21, sep22, sep23	67%	3
VET_21/22_FACILITIES AND RESOURCES	Covadonga Sánchez/ Fernando Vazquez / Adolfo Rodríguez	Improved and adequate learning in VTH, skill labs, and farms	undergraduate students	3/1/2021	1/31/2022	sep22, sep23	43%	2
VET_21/22_POSTGRADUATE	Isabel Rodríguez / Covadonga	Increase in course portfolio	postgraduate students	10/1/2021	5/30/2022	Feb-22	30%	3
VET_21/22_TEACHING MODEL	Isabel Rodríguez / Lydia Calleja	Improved learning experience and quality	undergraduate students	3/1/2021	7/31/2022	Feb-22	100%	4
VET_21/22_PRACTICAL TRAINING	Raquel Gómez Lucas	Increased and improved practical teaching	undergraduate students	3/1/2021	7/31/2022	Feb-22	83%	3

Annex 4. SER Working Group

In the elaboration of this Self-Evaluation Report have participated:

Belén Murillo Gorozarri and Cristina Peláez Lorenzo from UAX Quality Vice-Rectorate.

Iris Núñez Trébol, Emma Cuenca Revuelta, Javier García Castro, Alberto Pacheco Castro and Ana Judith Perisé Barrios from UAX Investigation Vice-Rectorate,

Martim Aresta Branco form UAX Financial Department,

Isabel Rodríguez Hurtado, Raquel Gómez Lucas, Covadonga Sánchez-Mellado Cienfuegos-Jovellanos, Lydia Calleja Bueno, Nuria Sánchez Mellado, Francisco Javier Birlanga Urbán, Isaac Navarro Martín, Elisa Gómez Rodríguez, Javier Pérez de Diego, Alexandra Marín-Baldo Vink, Marina Domínguez Ruiz, Alicia Álvarez Punzano, Raquel Criado González, David Sardón Ruiz, Nelida Fernández Pato, Verónica Salazar Nussio, Adolfo Rodríguez Montesinos and Osmeidy Bethzabe Duran Rodríguez for VF academic staff and coodinators.

Cristina Sánchez Pérez from UAX Library.

Beatriz Peralta Josa from UAX Planification.

Invención Fernández Quijano, María del Mar Calzadilla Cuesta and Enrico Pascucci de Ponte from Students information.

Juan Manuel Agudo Tomás and Inmaculada Montero González from Technology Department.

Ana Isabel Fernández Martínez, Rector.

Self Evaluation Report

UAX Veterinary Faculty