

# University of Vienna 2031 Development Plan\_\_\_\_\_

# University of Vienna 2031 Development Plan

upon the proposal of the Rectorate,

following consent by the Senate of the University of Vienna on 30 November 2023, unanimously approved by the University Board of the University of Vienna on 15 December 2023

# Imprint

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# Preamble

## UNIVERSITY OF VIENNA – MAKING A DIFFERENCE. SINCE 1365: IMPORTANT TASKS AT TIMES OF RADICAL TRANSFORMATION

The University of Vienna is the oldest university in the Germanspeaking world and, with almost 90,000 students, it is one of the largest universities in Europe. Almost a third of all students in Austria are educated here. The University of Vienna conducts outstanding research in a wide range of subjects, also in an international context, including humanities and social sciences as well as natural and life sciences. Its key significance for Austria as a centre of academic study and business brings with it both great responsibility and also particular challenges. The aim of the Development Plan is to strategically enhance the profile and specific qualities of the University of Vienna from a national and international perspective, bringing together the dimensions of research, teaching and the transfer of knowledge. By way of introduction, some of the central themes and guidelines of the Development Plan will be highlighted here.

The University of Vienna is an internationally renowned research university whose achievements are, in particular, reflected in the successes of our academics: Anton Zeilinger was awarded the Nobel Prize in Physics in 2022; academics from the University of Vienna are prominently involved in all five clusters of excellence, established by the Austrian Science Fund (FWF) for the first time in 2023, and, so far, have acquired a total of 121 of the highly competitive grants from the European Research Council (ERC). Since 2018, there has been an almost 50 % increase in third-party funding received across all subject groups, rising to EUR 120.4 million in 2022. In Austria, and in Europe as a whole, this is a particular sign of quality and the result of strategic investments in top-class international appointments and targeted support for early stage researchers, particularly through the new doctoral schools and a very ambitious tenure track programme. In 2023, the University of Vienna achieved its highest ever positions in the most important university rankings: 119th in the THE Ranking, 130th in the QS Ranking and in the 101-150 group in the Shanghai Ranking. In many subject groups, the University of Vienna is already one of the top 50 or top 100 universities in the world. These results show the direct effect of investments in research.

As an outstanding research university and as the biggest educational institution in Austria, the University of Vienna makes a significant contribution to society. Currently, for example, it is educating around 10,000 teachers in all subject areas. Due to the high number of students and, as a result, the challenging student-teacher ratios, the tasks in research and teaching are very much in competition with each other, not least in terms of budget. In fact, this dual identity as a research university and the largest educational institution in Austria must be considered together and seen as a distinct quality characteristic of what could be described as a European university model. An inclusive model that combines research excellence with free access to higher education and, in this way, gives many students the opportunity to develop personally through a university education, to make the most of professional opportunities and, at the same time, to make a contribution to society and to Austria as a business location. And the latest Austrian Institute of Economic Research (WIFO) study on the creation of value in 2022 once again impressively emphasised the direct link between individual opportunities and benefits for society: University graduates make a significant contribution to the country's innovative strength. They have a higher average income and pay correspondingly higher tax and social security contributions. They have a higher labour force participation rate and are more health-conscious. Through political participation and civic engagement, university graduates play a particularly active role in the way a community functions.

Combining supposed opposites together leads to challenges and opportunities in all areas of the University. The University of Vienna offers a broad range of subjects, comprising natural and life sciences as well as humanities and social sciences, and is characterised by its excellence and diversity, including in an international context. Today, innovation usually takes place at interfaces, including interfaces between fields that, traditionally, are far apart. All major issues of the future are highly complex, and innovative solutions can only be developed using a multidisciplinary approach. Core competences in a specific field are a prerequisite for carrying out productive work together, however. This is the case for the climate and the environment, digitalisation, health, migration and the understanding of democracy equally. Excellent basic research also opens up potential for applied research, and for cooperation projects with industry and business and also with public institutions, ministries, museums and memorials. Increasingly rapid innovation cycles often make the transitions between basic research and applied research more fluid.

In teaching, it is a matter of combining education and training. It is no coincidence that there have been a lot of discussions about Humboldtian ideals again in recent years. Specialised, practice-oriented training and the opportunity for our graduates to broaden their educational horizons go hand in hand. Especially in times of radical transformation, in times of growing populism and science scepticism, the University must also convey fundamental values of social coexistence: awareness of history, democracy and human rights, responsibility, respect, a critical discussion culture and cosmopolitanism. For Wilhelm von Humboldt, the ultimate goal of a university education was to teach people how to become citizens of the world: "To become a citizen of the world means, to deal with the big questions of humanity: to seek peace, justice, and care about the exchange of cultures, other gender relationships or another relationship to nature." These big questions of humanity are still of great relevance in the 21st century, without the need for much translation: peace and justice, the challenges of multicultural societies, the associated recognition and participation of people from many different social backgrounds, ethnic or religious affiliations, gender equality and the environment, climate and sustainability. In teaching, it is also important to provide digital offers to enhance the qualities of a university embracing the digital and on-site realm. The University of Vienna sees itself as a university embracing the digital and on-site realm that focuses on intensive personal exchange between teachers and students, as well as between students, and at the same time uses the possibilities of digital communication to increase the attractiveness of the programmes under changing social conditions, labour market conditions and individual needs. The University of Vienna can best develop its qualities and fulfil its

social mandate as comprehensively as possible if it manages to productively combine the listed aspects: research excellence and an open education system, basic research and applied research, education and training, a Platonic Academy and a university embracing the digital and on-site realm. In times of multiple crises and global challenges, ranging from climate change and AI to democracy and human rights, universities have a responsibility to analyse transformation processes and ask critical questions, to drive innovation and progress, to look for explanatory models and solutions and, at the same time, to provide stability and orientation for society and, in particular, for the younger generation. The university is a pioneer, role model and disseminator at the same time.

With research excellence in humanities and social sciences as well as in natural and life sciences and as the largest educational institution in the country, the University of Vienna successfully combines these major tasks and, in this way, makes an extensive contribution to society.

## **KEY FIGURES, GUIDELINES** AND PRIORITIES IN RESEARCH AND TEACHING

The impressive research output of the University of Vienna is demonstrated by key figures: participation in all five Austrian Science Fund (FWF) clusters of excellence, the number of highly competitive ERC grants, the continuous increase in third-party funding at national and European level and the positions in the most important international university rankings. This also includes the high quality of publications, the increasing number of publications with international partners, peer-reviewed publications and those in Q1 journals.

#### THIRD-PARTY FUNDS



## Diagram 1: Third-party funding received by the University of Vienna 2018-2022.

Total: all third-party funding received by the University of Vienna in the relevant year in million euros; third-party funding received from EU projects (EU) and from FWF projects (FWF) are listed separately here.

Application-oriented third-party funding: third-party funding from regional authorities (excluding the Vienna Science and Technology Fund, WWTF), the Christian Doppler Research Association (CDG), the Austrian Research Promotion Agency (FFG), companies, application-oriented EU programme lines (e.g. Pillar 3, ERC Proof of Concept).

To calculate the third-party funding per full-time equivalent professor, the third-party funding received in million euros was divided by the average annual full-time equivalents for the following groups of people: professors, visiting professors excluding visiting professorships in block form, associate professors and associated professors. Source: MIS of the University of Vienna.

In the period from 2018 to 2022, income from third-party funding increased significantly (2018: EUR 83.9m; 2022: EUR 120.4m). Thirdparty funding received per full-time equivalent (FTE) professor also increased during this period (2018: EUR 114.8k; 2022: EUR 166.3k). The FWF continues to play a significant role as the most important national funding organisation. The University of Vienna is involved in all five approved clusters of excellence in the Austrian Science Fund's (FWF) first call for proposals for clusters of excellence (in 2023 and therefore not part of the evaluation). Scientists from the University of Vienna also head the Microbiomes Drive Planetary Health cluster of excellence. In addition to FWF funding, which has risen from EUR 41.4m (2018) to EUR 51.5m (2022), EU thirdparty funding has almost tripled in the same period (2018: EUR 13.9m; 2022: EUR 36.9m). This is mainly due to the numerous ERC grants received by academics at the University of Vienna (see below). ERC grants, together with the Marie Curie actions, are the most important EU funding programmes for the University of Vienna. Diversification in the area of third-party funding is reflected in successes such as the eight Christian Doppler Laboratories and Ressel Centres that have now been established at the University of Vienna as well as the increasing third-party funding from application-oriented funding authorities and contract research (income in 2018: approx. EUR 13.4m; 2022: approx. EUR 18.7m).

## ERC-GRANTS

The acquisition of ERC grants has become extremely important for the University of Vienna because it not only emphasises the excellence in research and the competitiveness of the academics, these grants also bring with them high international renown and therefore make a significant contribution to the international reputation of the University of Vienna and its academics. The highly competitive ERC grants (approval rate generally < 10 %), which provide high funding amounts of 1.5-2.5 million euros (up to 14 million euros for Synergy Grants), enable researchers to set up new working groups and consolidate existing ones. This also has a positive effect on the promotion of early stage researchers. Since the introduction of this funding by the European Research Council in 2007, academics have so far been able to acquire 121 ERC grants (as of August 2023). These are 52 ERC Starting Grants, 33 ERC Consolidator Grants, 26 ERC Advanced Grants, 2 ERC Synergy Grants and 8 ERC Proof of Concept Grants. The University of Vienna has also been able to continuously increase the number of ERC grants acquired since 2007 (see Diagram 2). The acquisition of two ERC Synergy Grants for physics in 2020 is also a particularly pleasing development. The fact that the University of Vienna ranks 25th among all eligible academic institutions in the European Research Area in terms of the number of ERC grants it has received to date (source: CORDIS) again underlines its excellence. This result is even more impressive if we consider that, in this ranking, the University of Vienna is competing with renowned scientific associations with numerous facilities such as the CNRS and the Max Planck Society. However, success in this area also requires considerable additional investment by the University of Vienna, particularly to cover the costs of premises and building alterations to appropriately accommodate the ERC working groups.



newly obtained ERC grants

#### Diagram 2: ERC grants of the University of Vienna 2007–2023.

ERC grants of the University of Vienna 2007–2023. Since the establishment of the European Research Council (ERC) in 2007, 121 ERC grants have already been awarded to researchers at the University of Vienna (as of August 2023, implemented and awarded ERC grants). Allocation by year of award for the University of Vienna or year of transfer to the University of Vienna. ERC grants newly obtained in the respective year are shown in a lighter colour.

## PUBLICATIONS



#### Publications by the University of Vienna (2018-2022)

## Diagram 3: Share of peer-reviewed publications and Q1 publications (SCOPUS) among all published publications and number of Q1 publications per professor at the University of Vienna per year (period 2018–2022). Q1 (SCOPUS):

All publications in the Scientific Journal Ranking (SCOPUS) that were among the top 25 % in at least one category in the respective year. Q1/Prof.: Q1 publications per annual average full-time equivalent of the following groups of people: professors, visiting professors excluding visiting professorships in block form, associate professors and associated professors (*source: u:cris, MIS*).

An analysis of academic publications by academics at the University of Vienna in the u:cris research documentation system between 2018 and 2022 shows a continuous increase in the proportion of peer-reviewed publications (2018: 59.0 %; 2022: 66.0 %) and the proportion of publications in journals that are among the 25 % most cited in their respective subject area in the SCOPUS database (Q1; 2018: 21.9 %, 2022: 30.0 %). The number of Q1 publications per FTE professor also rose continuously during the period of observation (2018; 2.8; 2022: 3.2). These trends underline the increased quality awareness in the field of publications at the University of Vienna. Highly cited articles in Q1 journals (SCOPUS) are of great importance for the academic reputation of the University and its academics due to their high visibility in the international academic community. The impact of international academics at the University of Vienna can also be seen in the increased proportion of publications with international co-authors in the Web of Science between 2018 and 2022 (2028: 61.75 %; 2022: 67.2 %; source: InCites).

Publications with international co-authors make a significant contribution to the visibility of the University of Vienna and its academics and are also relevant for university rankings. This is also reflected in the fact that 11 academics from the University of Vienna were once again ranked among the highly cited researchers (https://clarivate.com/highly-cited-researchers/) in 2023.

The social impact of research results can also be measured by the publications assigned to the UN Sustainable Development Goals (UN SDGs). Between 2018 and 2022, academics at the University of Vienna released 4,813 publications that could be assigned to individual UN SDGs. The biggest contributions by academics at the University of Vienna were made to SDG 3 'Good Health and Wellbeing' (1,420 publications), SDG 16 'Peace, Justice and Strong Institutions' (790 publications) and SDG 14 'Life Below Water' (532 publications)

(source: u:cris). This shows that many academics at the University of Vienna are already active in academic fields with a high social impact, which also provides a major impetus when defining the strategic priorities of the University of Vienna.

## STRATEGIC PRIORITIES

The particular strength of the University of Vienna, compared with institutions both nationally and internationally, lies in the broad range of subjects and in the outstanding reputation of our humanities and social sciences as well as our natural and life sciences. This diversity offers the opportunity to have a unique way of dealing with major future issues that require multidisciplinary approaches and are located at interdisciplinary interfaces. The University of Vienna has defined *six strategic priorities* to continue to develop its special qualities, to promote cooperation across different faculties and subjects and joint work on the major issues of the future, and to make an even greater contribution to society:

- Culture, education, democracy
- Digital and data-driven transformations of science and society
- Climate, environment, sustainability
- Global health: physical, mental and social dimensions of health
- Systems of life foundations of life
- Quantum systems and materials for the future

The priorities consolidate research excellence, bring together competences from humanities, social sciences, life sciences and natural sciences, increase the attractiveness of the programmes with regard to education, training and the labour market and, at the same time, underline the extensive contribution the University makes to society through critical analysis, innovative solutions and practical ways of dealing with key issues of the future (see chapter 1: Research and Career Development of Early Stage Researchers).

#### RANKINGS AND INTERNATIONAL ATTRACTIVENESS

The University of Vienna has recently made a clear improvement in the current editions (2023/2024) of the three most visible rankings of higher education establishments, the THE World University Ranking, the QS World University Ranking and the Shanghai Ranking. In all three rankings, the University of Vienna remains the best-ranked university in Austria in 2023/2024 and in the current editions of all three rankings it has achieved the best position in its history (THE: #119 out of 1,904 universities; QS: #130 out of 1,500, Shanghai: #101– 150 out of 1,000). Compared to the previous year, the University of Vienna moved up 5 places in the THE and a remarkable 21 places in the QS. This achievement has also come in the face of ever-increasing competition, with numerous new universities added to the rankings each year (see Diagram 4). In terms of relative positioning (top x % of all universities in the ranking), the University of Vienna has worked its way up from the top 15 % worldwide to the top 6 % in the THE Ranking since 2018, and from the top 17 % worldwide to the top 9 % in the QS Ranking. In the Shanghai Ranking, the University of Vienna was able to move up to the 101–150 group after many years of being constantly placed in the 151–200 group. Numerous subject areas also again had an excellent position in the subject rankings of the three most important ranking providers. The THE, QS and Shanghai subject rankings currently list 16 subject areas among the top 50 worldwide and 30 subject areas among the top 100 worldwide.

SUBJECT AREA AT UNIVERSITY OF VIENNA	RANKING	CURRENT POSITION	UNIVERSITIES IN THE RANKING
Communication Science	Shanghai	#3	300
Communication and Media Studies	QS	#14	250
Arts and Humanities	THE	#27	663
Theology, Divinity, and Religious Studies	QS	#28	140
Mathematics	Shanghai	#34	500
Archaeology	QS	#37	240
Anthropology	QS	#38	150
Law	THE	#41	290
History	QS	#43	230
Arts and Humanities	QS	#44	520
Social Sciences	THE	#45	941
Linguistics	QS	#46	320
Psychology	THE	#46	568
Physics	Shanghai	#48	500
Philosophy	QS	#49	210
Political Science	Shanghai	#50	400

Table 1: The top 50 subject areas of the University of Vienna in the three most visible subject area rankings (THE, QS, Shanghai). It should always be noted that subject rankings do not show the organisational units of a university. Instead they are based on an evaluation of the Web of Science/SCOPUS publication categories.

Even if rankings cannot comprehensively reflect the academic performance of universities due to their methodology, good ranking results make a significant contribution to the international visibility of a university. This is essential for starting collaborations with other universities and recruiting renowned international academics and students. The University of Vienna is therefore making every effort to continue to improve its position in the most visible rankings. Improvement is not an end in itself, but it is the result of the University's efforts to continuously strive for excellence in research, teaching and administration. In the best-case scenario, continuing university initiatives to increase excellence will also have a positive effect on ranking results. The University of Vienna has enhanced its reputation management as an important instrument for this and, as part of a project throughout the University, aims to improve its reputation in the academic community and among its graduates. This should also have a positive effect on the THE and QS rankings, which, to a significant extent, use the reputation of universities when calculating the rankings. However, the most important driver for visible success in rankings remains the budget. University initiatives are only a minor instrument for improving the performance of a university. To move up the most visible rankings more quickly, a continuous rise in basic funding and an increase in support from funding bodies are essential.

In addition to rankings, international appointments of professors are also an important indicator of international visibility and attractiveness. This means they are of great importance for an international research university such as the University of Vienna. International appointments promote the exchange of knowledge, experience and perspectives from different parts of the world. This encourages a diverse and interdisciplinary research culture in which innovative ideas can emerge and new insights can be gained. They also help the University to attract globally recognised experts in their field. By attracting outstanding academics, the University can enhance its reputation and become established as a leading institution in certain subject areas. This creates a lively and multicultural environment in which the University's students can also develop global perspectives and acquire intercultural competences. Newly appointed professors also bring their existing networks with them when they come to the University of Vienna. This provides the starting point for international third party-funded projects and for new opportunities for cooperation with other universities and research institutions. This means the University is an important hub for international cooperation and contributes to the further development of academic knowledge. Establishing an international network of outstanding academics also improves the University's reputation and its visibility in the international research community.

The appointment policy of recent years shows a high proportion of international appointments/tenure tracks (as of: 3 July 2023). Of 312 professorships and tenure track positions, 213 were filled by academics who came to the University of Vienna from foreign institutions. Except in 2022, the proportion of international appointments is always around 70 %.



(↑) *Diagram 4: The performance of the University of Vienna in the THE and QS rankings of higher education establishments 2018–2024.* The THE Ranking for 2024 was already published in September 2023. The sharp increase in the number of new universities every year (THE: +800 universities since 2018; QS: +476 universities since 2018) means the good performance of the University of Vienna in recent years must be seen as particularly impressive. *Source: THE, QS.* 

( $\downarrow$ ) Diagram 5: International appointments and tenure tracks in the period 2018–2023 (as of: 3 July 2023). The (agreed) times for taking up a position from 2018–2024 in accordance with sections 98, 99a, 99, para. 1 of the Universities Act from a fixed term of 2 years and the (agreed) times for taking up a position from 1 June 2019–2024 for tenure track professorships were counted (Source: Professors' Appointment Consulting Service of the University of Vienna).



# TEACHING AND STUDIES – STRATEGIC ORIENTATION

As an international research university, the University of Vienna places emphasis on pursuing the principle of research-led teaching. The major future issues that are the focus of the University's strategic priorities, such as environment, climate, sustainability, need to be integrated even more than before in teaching. This will be achieved by expanding specific, interdisciplinary degree programmes (bachelor's degree, master's degree, doctoral programme) and by integrating them as cross-sectional topics as part of extension curricula. The ability to analyse complex issues in a team and from a multidisciplinary perspective and to look for solutions together will determine the future of work. At the same time, in this way, the University fulfils its comprehensive educational mission and provides graduates with knowledge-based access to major future issues and current social debates.

The forced use of digital teaching formats during the pandemic made it clear which qualities of face-to-face teaching cannot be replaced, but also revealed the potential of digital teaching formats. The University of Vienna would like to make the most of this boost to innovation and integrate it into teaching on a lasting basis. As a university embracing the digital and on-site realm, the University takes centre stage as a social space, and as a place for interaction and direct exchange between teachers and students as well as among students. At the same time, hybrid and digital teaching formats need to be increasingly used to promote students' digital competences, but also to increase study feasibility and make it easier for individuals to reconcile their studies, work and care responsibilities. The changing social framework conditions, the living conditions and expectations of students and the requirements of the labour market need to be taken into account in this regard. The choice of teaching formats very much depends on the respective learning content and objectives and varies from subject group to subject group. The world of work is increasingly characterised by lifelong learning as a way of continuously updating and expanding knowledge and the way it is applied. The University of Vienna takes this into account by strategi-

cally expanding its postgraduate programmes. ChatGPT and similar applications mean that artificial intelligence is now part of everyday life and will also fundamentally change the way research and teaching are carried out at the University. The aim must be to integrate these new technologies and to ensure students are familiar with the possibilities they provide and have a transparent, critical approach when using them. For the University of Vienna to remain attractive for teachers and students in the future, it will require a strategic improvement of the infrastructure so it is in line with the needs of different teaching and learning formats. This applies to the technical equipment and flexible installation of furniture at the premises as well as extensive access to analogue and digital learning materials. The creation of student spaces is a high-priority goal when carrying out construction measures and consolidations of locations to ensure that students have an appropriate space for learning, exchange and social interaction.

Improving the still unfavourable student-teacher ratios in many parts of the University of Vienna remains a major challenge. Intensive supervision is not only fundamental to the quality of teaching, it is also an important way of increasing the number of students fulfilling the statutory requirements of active studying. With a share of around 15 % of the total budget of Austrian universities, almost 30 % of all academic degrees are currently conferred at the University of Vienna. Digital and hybrid teaching formats do not in fact require less but rather significantly more intensive supervision. In times of AI, the organisation of courses and examinations, and the discussion of seminar essays and academic theses, will require considerably more time to ensure that learning objectives have been achieved and examinations have been completed independently.

#### University of Vienna: Pursued degree programmes/FTE academic staff



#### (↑) Diagram 6: Pursued degree programmes per full-time equivalent

academic staff at the University of Vienna 2018–2022. Pursued degree programmes are counted for the winter semester of the respective year (i.e. degree programmes for which students have been admitted and (re-)enrolled; excluding co-registrations, leaves of absence and short degree programmes). Breakdown by subject cluster: All clusters: average of all subject clusters; LBESS: Law, business and economics and social sciences, LIFE: Life sciences, HUMAN: Humanities, NS: Formal and natural sciences. Full-time equivalent academic university staff: staff at faculties/centres, groups of people 'Academic staff' and 'Other people with authorisation to teach' (source: Accounting and Finance service unit).

(↓) Diagram 7: Graduations per full-time equivalent professor and equivalent positions at the University of Vienna 2018–2022. Graduations are counted according to the academic year (AY). Breakdown by subject cluster: All clusters: average of all subject clusters; LBESS: Law, business and economics and social sciences, LIFE: Life sciences, HUMAN: Humanities, NS: Formal and natural sciences. Professors and equivalent positions: professors, visiting professors excluding visiting professorships in block form, associate professors and associated professors (*source: Accounting and Finance service unit*).





University of Vienna: Pursued degree programmes/FTE professor and equivalent p.



# Diagram 8: Pursued degree programmes per full-time equivalent professor

*and equivalent positions at the University of Vienna 2018–2022.* Pursued degree programmes are counted for the winter semester of the respective year (i.e. degree programmes for which students have been admitted and (re-)enrolled; excluding co-registrations, leaves of absence and short degree programmes). Breakdown by subject cluster: All clusters: average of all subject clusters; LBESS: Law, business and economics and social sciences, LIFE: Life sciences, HUMAN: Humanities, NS: Formal and natural sciences. Professors and equivalent positions: professors, visiting professors excluding visiting professors in block form, associate professors and associated professors (*source: Accounting and Finance service unit*).

Despite a decline in the number of pursued degree programmes/ FTE academic staff between 2018 and 2022, the number of students supervised by academic staff at the University of Vienna is still very high. Across all subject clusters (All clusters), the entire academic staff of the University of Vienna (FTE academic staff) supervised between 29.6 (2018W) and 23.6 (2022W) pursued degree programmes. There are clear differences between the subject clusters: the number of students per FTE is particularly high in the law, business and economics and social sciences subject cluster (peak value: 44.9 students/FTE in 2018W) and in the humanities subject cluster (peak value: 36.7 degree programmes/FTE in 2018W). In the formal and natural sciences (peak value: 13.8 students/FTE in 2018W) and in the life sciences (peak value: 22.8 degree programmes/FTE in 2018W), the student-teacher ratios are significantly better than in the other clusters. If we look at the student-teacher ratios per FTE professor and equivalent positions, the figures are even more drastic: across all subject clusters (All clusters), between 147.0 (2018W) and 131.4 (2022W) degree programmes are supervised per FTE. There are similar differences between the subject clusters: The situation is at its most tense in law, business and economics and social sciences (peak

value: 204.9 students/FTE in 2018W) and in the humanities subject cluster (peak value: 153.7 degree programmes/FTE in 2018W). In the formal and natural sciences (peak value: 76.4 degree programmes/FTE in 2018W) and in the life sciences (peak value: 148.9 degree programmes/FTE in 2018W), the student-teacher ratios are significantly lower than in the other subject clusters.

The number of graduations per FTE professor and equivalent positions also shows the high workload of academic staff. The number of graduations/FTE professor and equivalent positions fell slightly between 2018 and 2022 across all subject clusters (All clusters) (from 13.9 graduations/FTE in the academic year 2017/18 to 12.3 in the academic year 2021/22), but is still at a very high level. As with the pursued degree programmes, there are also clear differences here between the subject clusters. The highest number of graduations per FTE/professor and equivalent positions is in the law, business and economics and social sciences subject cluster (peak value: 20.7 graduations/FTE in the academic year 2017/18) and in the humanities subject cluster (peak value: 14.7 graduations/FTE in the academic year 2019/20). The number of graduations/FTE is significantly lower in the formal and natural sciences (peak value: 7.6 graduations/FTE in the academic years 2017/18 and 2018/19) and in the life sciences (peak value: 17.6 students/FTE in the academic year 2020/21).

#### FINANCIAL AND LEGAL FRAMEWORK

The development opportunities and leeway of the University very much depend on the legal and financial framework and sufficient basic funding. With regard to the indicator 'number of students fulfilling the statutory requirements of active studying', the main instrument would be an adjustment of the legal framework.

The current WIFO study on university funding and the 'new university funding scheme' have shown the direct link between university funding and teaching and research excellence. The University of Vienna has used the funds available under the 2019-2021 performance agreement in particular for strategic development, especially in the form of investments to attract top-class international professors and the corresponding research infrastructure, and also with a very ambitious TT programme and the comprehensive establishment of doctoral schools. The strategic investments also include expanding and internationalising the research services, enhancing the Marie Curie programme for highly qualified early stage researchers and the Entrepreneurship Initiative. The success of this strategy can be seen not least in the regularly obtained prestigious research prizes (Wittgenstein Awards and FWF Start Prizes), the exponential increase in third-party funding, particularly from the ERC, and the improved positions in international university rankings.

For the coming performance agreements until 2027, the government programme includes continuation and consolidation of this growth path in order to make Austria an innovation leader in Europe. However, the sharp rise in inflation shortly after the 2022–2024 performance agreement was concluded, and the extreme rise in costs caused by this (salary, energy and material costs), have called these targets into question. Due to the ambitious, long-term investments of the 2019–2021 performance agreement, including 70 new professorships, these cost increases mean the University of Vienna, especially, is facing particular challenges. This also applies to the successful acquisition of third-party funding, especially as the University does not receive any overheads in the case of the Austrian Science Fund (FWF), the most important national funding organisation, and covers all costs for research infrastructure itself. In future, as part of the new FWF clusters of excellence, as much as 40 % of the total costs plus overheads will have to be financed from the university budget. Despite the additional funding approved by the Federal Ministry of Education, Science and Research (BMBWF) for 2023 and lined up for 2024, the cost increases could only be covered by stopping job announcements throughout the University and making cuts to investments and faculty budgets. The 2025-2027 performance agreement is now decisive for the prospects of the University of Vienna. In order to maintain the successful development of recent years and remain internationally competitive, a significant increase in the basic budgets is required in addition to covering cost increases. Research and teaching excellence require a long-term planning horizon. The WIFO study published in June 2023 on the funding of Austrian universities in an international comparison showed details of the funding framework required by the University of Vienna in order to catch up with the leading universities in Germany, Denmark, the Netherlands and Switzerland and to position Austria as an innovation leader in Europe.

- 30 - 20 - 10 - 0	+
University of Vienna	
TU Wien	
University of Vienna + Vetmed + Med Uni Wien	
University of Amsterdam	
University of Uppsala	
University of Zurich	
ETH Zurich	
Copenhagen University	
LM	
University of Helsinki	
Imperial C London	
University of Oxford	

# Diagram 9: Students in relation to academic staff (FTE), 2020. Extract from the WIFO study from April 2022.

Data based on analyses of the European Tertiary Education Register ETER. The figures are not pure student-teacher ratios because no information is available on the number of hours taught by academic staff. The diagram from the WIFO study shows that other universities have significantly more staff per student, and these can be used for better supervision and research. At the University of Oxford, for example, there are four students for every academic member of staff. The number of students in the WIFO study was adjusted for the number of students fulfilling the statutory requirements of active studying, but even after adjustment, the University of Vienna is still well above other universities in terms of the number of students per academic staff member, with the exception of the University of Amsterdam. A statistical 'comprehensive University of Vienna' modelled as part of the WIFO study using data from the University of Vienna, the Medical University of Vienna and the University of Vienna, the Medical University of Vienna is still far from the top positions (Oxford, Imperial College London, Helsinki).



Diagram 10: Current expenditure per student (ISCED 5–8), in EUR PPP, 2020, non-specialised comprehensive universities in metropolitan regions (source: WIFO study, April 2023).

The diagram shows that the University of Vienna has significantly less funding per student than other universities in metropolitan regions. In the ranking of nine universities used for the WIFO study, it is in last place. Even a statistical comprehensive university used for the WIFO study is far from the top group (Oxford, Zurich, Copenhagen).



# 1. Research and Career Development of Early Stage Researchers

#### RESEARCH

RESEARCH AS A DRIVING FORCE FOR DEVELOPMENT. Research is the engine that drives our society forward and ensures our prosperity. As a research-oriented university, the University of Vienna fulfils its responsibility by combining excellence in basic research and social relevance as a contribution to dealing with and overcoming the economic, societal and cultural challenges of the present - and in particular as a way of anticipating and overcoming future challenges. The academics at the University of Vienna acquire prestigious European and international research projects and renowned academic prizes and publish their work in important, highly cited publication media and respected publishing houses. This increases international visibility and makes a significant contribution to the fact that the University of Vienna currently occupies 119th place in the THE World University Ranking and 130th place in the QS World University Ranking, its best ever position in each case, and is among the top 6 % (THE) and 9 % (QS) of all universities in both rankings (see chapter Preamble). In addition, several research areas at the University of Vienna are already among the top 100, some even among the top 50 in the world, and in 2023 eleven academics from the University of Vienna were on the list of the world's most cited researchers. To maintain this momentum, it is necessary to further increase visibility and impact, for instance through high-quality, internationally recognised publications in top journals, series and book publications, as well as through conference contributions while taking the subject cultures into account. Sufficient financial resources are essential for excellent and relevant research. Third-party funding is playing an increasingly important role for financing research. Adequately funded national and international funding bodies, which offer reasonable prospects of success and cover overheads, are the prerequisite for international competitiveness. This is why, in Austria, better funding for the FWF and, at the European level, more funds for basic research are required. Quality assurance is also particularly important here because the submitted projects face competition with only the best national and international researchers succeeding. The University of Vienna therefore also sees third party-funded projects acquired in competitive proce-

dures as proof of quality assurance and an important instrument of international visibility. It is endeavouring to further increase the share of third-party funds in the overall budget. It is focusing on the acquisition of third-party funds for projects of excellence in particular. The University of Vienna has demonstrated this by continuously increasing the number of ERC grants it has acquired in recent years and by its very successful participation in the first call for proposals for the FWF clusters of excellence. At the same time, the University of Vienna would like to emphasise that third-party funding is not a substitute for sustainable, continuously increasing basic funding for university research. Without steady basic funding, it is not possible to guarantee the availability of state-of-the-art basic equipment and to therefore recruit and retain top academics at all career levels. This provides inspiration for innovation and enables the necessary preparatory work for submitting competitive applications in the first place. It is hardly possible to achieve the desired further improvement in research performance and, as a result, also in the ranking results without continuously increasing basic funding and without better support from national funding organisations such as the FWF.

A UNIQUE RESEARCH PROFILE. The University of Vienna's research covers a uniquely wide range of subject areas in Austria and is only equalled by a few other universities in the DACH countries (Germany, Austria, Switzerland), such as the Humboldt University of Berlin and the University of Zurich. This wide range of subjects puts the University in an excellent position to recognise and examine the complex challenges of modern society and to develop new solutions. The overall strengths of the University are based on the key research areas of the faculties (see chapter 10: Key Research Areas of the Faculties and Subject Dedication of Professorships) and their output indicators. These indicators include the competitive acquisition of third party-funded projects in basic research (e.g. ERC grants, collaborative EU, Austrian Science Fund (FWF), Vienna Science and Technology Fund (WWTF) projects) and in application-oriented research (e.g. Austrian Research Promotion Agency (FFG), Christian Doppler (CD) laboratories, COMET centres), the awarding of prestigious academic prizes (e.g. START Prizes or Wittgenstein Awards) and institutions with particular international visibility, such as the European Law Institute (ELI). A particular contribution to profile development is made by managing or participating in FWF clusters of excellence. Key research areas of the faculties can also be characterised by particularly good performance in current subject rankings such as the QS, THE or Shanghai rankings. Knowledge transfer and exploitation (licences, spin-offs) as well as instruments for initiating collaborative EU projects (e.g. COST projects) and projects that promote communication, education and participation (citizen science) are also included as indicators.

Areas of the University of Vienna that stand out due to their success in national and international competition are summarised in *ten cross-faculty research specialisations throughout the University:* 

- *Aesthetics, culture, history:* The focus of this cross-faculty research specialisation is on the historical and cultural dimensions of human coexistence, their social framework discourses and their presentation in the media. This cross-faculty research specialisation takes into account the historical and cultural significance of Vienna as a location in a European and global perspective.
- *Food and drugs:* The cross-faculty research specialisation comprises research which deals with the synthesis, isolation, structural analysis and development of complex natural and active substances (e.g. cancer drugs), functional and bioactive food ingredients and their effect on the human body and also the identification of new active substances from nature.
- *Construction of identity and concepts of society:* This cross-faculty research specialisation deals with questions of identity construction on an individual and collective level (e.g. family, generations, citizenship) as well as with politics and political communication.
- Internationalisation of the economy and law: In this cross-faculty research specialisation, the academics at the University of Vienna deal with the increasing Europeanisation of the economy, politics and society, in particular also with the internationalisation of markets and institutions and the legal challenges and risks arising here. Another focus deals with the digital economy and digital law.
- *Cognition, communication and systemic reflection:* The focus in this cross-faculty research specialisation is on studying cognitive and neuronal processes of humans and animals and the basic principles of perception and behaviour.

- *Microbiology, ecosystems and evolution:* Microbiological, evolutionary, developmental and ecological processes which are essential for an understanding of our planet are studied in this cross-faculty research specialisation.
- *Models and algorithms:* The behaviour of complex and dynamic systems is described with the help of mathematical models and made calculable with the help of computer algorithms. This cross-faculty research specialisation is relevant for many areas of research.
- *Molecules, cells and their interaction:* This cross-faculty research specialisation concerns molecular biology, cell biology and biochemistry questions and also the computational simulation of the clarification of complex biological structures.
- *Materials and the quantum level:* This cross-faculty research specialisation concerns theoretical questions of quantum physics and its technological applications, e.g. quantum cryptography and quantum computing and materials science questions ranging from the quantum level to the nano level and on to the examination and development of sustainable materials for environmentally friendly technologies.
- The environment and cosmic processes: This cross-faculty research specialisation covers environmental processes on the Earth's surface and in the atmosphere to gain a better understanding of the dynamic of processes in complex systems and be able to make corresponding predictions. In addition, cosmic processes, the origin and formation of stars, galaxies and planets are examined with the help of observation stations such as the ESO (European Southern Observatory) and with the help of modern high-performance computers (Vienna Scientific Cluster).

The definition of the University of Vienna's excellence in fields of research as cross-faculty research specialisations and the underlying criteria require continual reflection and adaptation, and internal and external views also have to be taken into consideration here. This is essential to ensure that criteria remain valid and meaningful and that new developments can be continuously taken into account. A university of the size and reputation of the University of Vienna must be innovative and future-oriented and also offer space for research topics whose significance may only become apparent in the future. Impressive examples of this are quantum research and the discovery of gene scissors (CRISPR-Cas). After decades of successful basic research, both are now among the most important and innovative fields of research worldwide and were recently honoured with Nobel Prizes (Nobel Prize in Chemistry in 2020 to Emmanuelle Charpentier; Nobel Prize in Physics in 2022 to Anton Zeilinger).

To quote Max Perutz: "Discoveries cannot be planned, they pop up, like Puck, in unexpected corners." The University is committed to this openness, which we see as an opportunity and which characterises us not only in research, but also in teaching.

#### Cross-faculty research specialisations



Diagram 11: The ten cross-faculty research specialisations of the University of Vienna.

#### STRATEGIC PRIORITIES

The major societal challenges of our time are global in nature and highly complex. Solutions require multidisciplinary approaches, and innovations in research are increasingly emerging at interfaces. Thanks to its unique profile, which is based on a broad range of subjects, the University of Vienna is in an ideal position to help deal with the major societal challenges of our time, such as those defined in the EU Framework Programmes (in particular Horizon Europe 'Societal Challenges' and 'Missions') and the UN Sustainable Development Goals (SDGs). At the national level, these challenges are reflected in academic and higher education policy objectives in the Austrian University Development Plan (GUEP), the Austrian Higher Education Plan (HoP) and the RTI strategy, and therefore also largely determine the priorities for research funding (FWF excellence programmes, WWTF, etc.).

The University of Vienna is aware of the major societal challenges and its special responsibility for the future. To fulfil its role in Austria and in the European Research Area and to make the best possible contribution, the University of Vienna is pooling together its strengths in six strategic priorities. Here, in the coming years, significant contributions will be made in research and teaching and the international reputation and visibility will be increased even further. These strategic priorities are based on existing cross-faculty research specialisations at the University and the key research areas of the faculties/centres, bring together competences going beyond the boundaries of subjects and faculties and generate significant synergy effects. The dimensions of research, teaching, knowledge transfer and international affairs are interlinked and their contents are coordinated in the strategic priorities.

The definition of the strategic priorities is essentially based on *four parameters*:

- *Excellence and international competitiveness* in research our most successful academics are involved in the strategic priorities.
- *Creation of synergies* bringing together competences from the humanities, social sciences, life sciences and natural sciences, which, in terms of scope and excellence, are particularly characteristic of the University of Vienna.

- *Attractiveness of programmes* on offer with regard to education, training and the labour market increased visibility and improved recruitment opportunities at all levels. Educating the problem solvers of the future.
- Social relevance and significance for major issues of the future – results from university research are passed on to an even greater extent to society. In the strategic priorities, solutions for the most pressing social issues are developed jointly and from multidisciplinary perspectives.

The strategic priorities pool together and channel activities in research, teaching and the career development of early stage researchers and expand international networks (e.g. via Circle U.) and national cooperation projects. They are socially relevant, interdisciplinarily networked and internationally visible and promote successful applications for cooperative, international third partyfunded projects (e.g. EU Missions).

Strategic priorities can also provide a link between new, increasingly interdisciplinary master's and PhD programmes, making the University of Vienna particularly attractive for young academics. In the area of teaching, too, the process of profile development and the establishment of networks in the available range of courses is therefore being continuously boosted (see chapter 2: Studying and Teaching).

Expertise from the various fields is pooled together in the strategic priorities and serves as a starting point for cooperation projects with business and society. Pooling this expertise should also lead to increased entrepreneurial activities in the broadest sense.

With this in mind, the University intends to organise services and support measures to promote the exchange of knowledge (e.g. innovation labs) in line with its strategic priorities (see chapter 4: Impact of the University on Society – Exchange of Knowledge).

The strategic priorities have their profiles raised further via interdisciplinary, innovative professorships, via the subject dedication of professorships as part of rolling development planning (see chapter 5: Employees and chapter 10: Key Research Areas of the Faculties and Subject Dedication of Professorships) and additional, competitively advertised tenure track professorships, which are located in particularly innovative areas and build bridges between emerging research fields. This also requires additional investment in academic and spatial infrastructure (see Chapter 7: Infrastructure).



*Diagram 12: Representation of a strategic priority.* Based on the previous achievements in the cross-faculty research specialisation, a nationally and internationally networked and visible new priority will be created by pooling together and interlinking activities. Key components are the appointment and recruitment of outstanding academics from various disciplines and career levels, attractive master's programmes and doctoral schools, extension curricula (EC) as well as cooperation projects, e.g. as part of the European University Alliance 'Circle U.' and knowledge transfer activities, e.g. innovation labs. Through their growing appeal, the strategic priorities increase the visibility of the University of Vienna in (academic) society and, with their social relevance, help deal with grand societal challenges, such as those underlying the 17 Sustainable Development Goals (SDGs 1-17) of the Universit.



• Culture, education, democracy • Digital and data-driven transformations of science and society • Climate, environment, sustainability • Global health: physical, mental and social dimensions of health • Systems of life – foundations of life • Quantum systems and materials for the future

Diagram 13: The six strategic priorities of the University of Vienna.

#### Culture, education, democracy.

What constitutes cultural identities? How do political systems and social discourses work? How is high-quality and inclusive education guaranteed? What is the significance of language and multilingualism, what role do religions play in the ideologically pluralistic society of the 21st century? What is the impact of demographic changes on society? The topics summarised in the priority 'culture, education, democracy' are dedicated to the 'DNA' of human coexistence and its forms of communication. As the largest teacher education institution in Austria, with around 10,000 students across all subject areas, the University of Vienna plays an outstanding role in the field of education and training with great visibility and a high multiplication factor.

The strategic priority is based mainly on the cross-faculty research specialisations 'aesthetics, culture and history', 'construction of identity and concepts of society' and 'cognition, communication and systemic reflection' and the key research areas of the faculties integrated in these.

The priority has an international network through the University of Vienna's participation in the European alliance 'Circle U.', with the knowledge hub 'Democracy', as well as through participation in the excellence network 'CENTRAL', which is very much involved in socially and politically relevant issues and endeavours to bring the academic discourse to the public. The University of Vienna also coordinates the European research infrastructure 'MEDem' in the field of democracy and election research. There are key focuses and national cooperation projects within the EurAsian Transformations cluster of excellence (lead: Austrian Academy of Sciences, OeAW) and the Knowledge in Crisis cluster of excellence (lead: Central European University, CEU), in which academics from the University of Vienna are prominently involved, as well as in the Wittgenstein Centre for Demography, which is run in partnership with the International Institute for Applied Systems Analysis (IIASA) and OeAW. The content is also in line with the European initiatives 'Promoting our European way of life' and 'A new push for European democracy' (https://european-union.europa.eu/priorities-and-actions/eu-priorities\_en).

#### Digital and data-driven transformations of science and society.

Digital and data-based technologies are fundamentally and rapidly changing the world, influencing the way people inform themselves, form opinions and generate knowledge, how they make decisions and interact. At the University of Vienna, the development of new technologies in the fields of machine learning and artificial intelligence goes hand in hand with systematic research into their impact on individuals and society. Questions of digitalisation can only be answered in an interdisciplinary manner. Technological innovations and ethical, social and legal framework discourses must be considered in context.

Building on its uniquely broad range of subjects and the research expertise established in five cross-faculty research specialisations (cross-faculty research specialisations 'Models and algorithms', 'Internationalisation of the economy and law', 'Construction of identity and concepts of society', 'Cognition, communication and systemic reflection' and 'Aesthetics, culture and history'), the University of Vienna is helping to shape the key technologies of the future in a sustainable and humane way.

The University of Vienna is prominently involved in the FWF cluster of excellence Knowledge in Crisis (lead: CEU) and also works with Austrian partner institutions as part of the Vienna Scientific Cluster (VSC), the High Performance Computing – EuroCC Austria cluster and numerous digitalisation projects. In this field, it is involved in the international initiatives European High Performance Computing (EuroHPC), Centre Européen de Calcul Atomique et Moléculaire (CECAM) and the European Open Science Cloud (EOSC), for instance. In view of the current societal challenges arising from the rapid development of artificial intelligence (AI), the University of Vienna is planning to expand and deepen its competences in this area. With this in mind, professorships related to artificial intelligence and its societal impact will be advertised in various subject areas according to additional budgets (see chapter 10: Key Research Areas of the Faculties and Subject Dedication of Professorships).

The topics of the strategic priority also refer to the content and objectives of important national, European and international programmes, such as the Austrian Research and Technology Report 2022 in the areas of quantum research, high-performance computing and artificial intelligence or the European initiative 'A Europe fit for the Digital Age'.

#### Climate, environment, sustainability.

How can we stop climate change? How do we ensure the Earth's ecosystem is in a stable, sustainable and fair condition? How can people deal with these challenges and be motivated to make their own individual contribution? What are the interactions between demographic changes and climate change? Academics at the University of Vienna work across disciplines on a wide variety of aspects of these key topics: from earth and environmental systems sciences in the natural sciences, social sciences and humanities to psychological, legal and economic issues.

The University's cross-faculty research specialisations 'The environment and cosmic processes' and 'Microbiology, ecology and evolution' are the main pillars of this priority.

The Microbiomes Drive Planetary Health cluster of excellence (lead: University of Vienna) will make a significant contribution to ensuring the strategic priority of climate, environment, sustainability has national and international visibility, helping raise its profile in the process. Cooperation projects in the Wittgenstein Centre for Demography, which is run in partnership with the IIASA and the OeAW, as well as cooperation projects with GeoSphere Austria, the Climate Change Centre Austria (CCCA) and the Biodiversity Austria network also contribute to this. Global health: physical, mental and social dimensions of health. How can physical and mental health be ensured for all people and managed at an individual, national and global level? What effects do social differences, diet, physical activity, inclusive versus exclusive healthcare and social framework discourses have on identity, health and well-being? The priority takes into account the different dimensions of health and links research across disciplines: from the molecular level onto mental and social health and planetary health.

Building on the University's existing cross-faculty research specialisations of 'Food and drugs', 'Molecules, cells and their interaction', 'Microbiology, ecology and evolution', 'The environment and cosmic processes' and 'Construction of identity and social processes', the priority addresses key and diverse dimensions of health.

There are international networking activities as part of organisations such as the Global Health Hub of the Circle U. alliance, for instance, and the priority is given a boost at the national level through close cooperation with the Medical University of Vienna and the OeAW.

The priority also makes an important contribution to European initiatives such as the Beating Cancer Plan (https://health.ec.europa.eu/system/files/2022-02/eu\_cancer-plan\_en\_0.pdf), the 'EU Mission on Cancer' and the 'Important Projects of Common European Interest (IPCEI) Health'.

## Systems of life – foundations of life.

How did life on Earth develop? How do organisms integrate stimuli that come from the environment with information sent by their internal organs? New academic findings on the foundations of life create the basis for the socially relevant innovations of tomorrow. The aim of the priority 'Systems of life' is to research life, its requirements and processes, in all its facets: from the molecular to the planetary level and from the most diverse disciplines. The particular strength of the University of Vienna is to bring together the perspectives from the life and natural sciences and those from the humanities and social sciences, for example in the field of cognitive neuroscience or research into human evolution.

The priority builds on existing cross-faculty research specialisations at the University of Vienna ('Molecules, cells and their interaction', 'Microbiology, ecology and evolution', 'Food and drugs', 'Cognition, communication and systemic reflection' and 'Models and algorithms') as well as close cooperation with the Medical University of Vienna and the OeAW in the fields of molecular biology, microbiome research and life sciences. International networking activities are carried out via the European infrastructures EIRENE and ELIXIR, for instance.

### Quantum systems and materials for the future.

In quantum physics, materials science, mathematics and computer science, scientists are working on future technologies such as quantum computing or intelligent and green materials. Fundamental questions about the quantum nature of space, time and gravity, new paradigms in quantum information and the physics of quantum many-body systems need to be solved. New materials are a key requirement for the high-technology of tomorrow. The results of basic research make it possible to develop materials for the future. Research topics from the University's cross-faculty research specialisations 'Materials and the quantum level' and 'Models and algorithms' are pooled together and given more intensive focus in this priority.

The priority refers to the areas of 'quantum research and high-performance computing' as described in the Austrian Research and Technology Report 2022. At the national level, the priority is based on intensive cooperation, particularly with the OeAW and the Vienna University of Technology in mathematics and quantum physics. The two new clusters of excellence Quantum Science Austria (lead: University of Innsbruck) and Materials for Energy Conversion & Storage (MECS) (lead: Vienna University of Technology), in which the University of Vienna is prominently involved, will play a key role here. The strategic priority also benefits from the joint HPC infrastructure of the Vienna Scientific Cluster and the participation in CECAM.

#### Reference to the UN Sustainable Development Goals (SDGs)

The expertise in research, teaching and knowledge exchange bundled in the strategic priorities should make a significant contribution to help us overcome the grand societal challenges of the present and future. Key objectives of the UN SDGs are also addressed here. The strategic priority of culture, education, democracy, for example, contributes to the objectives of the SDGs "End poverty in all its forms everywhere (SDG 1)", "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (SDG 4)" and "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels (SDG 16)". Central aspects of SDG 4 are also incorporated in the strategic priority of digital and data-driven transformations of science and society. The content of the strategic priority of climate, environment, sustainability is particularly close to the UN goals on "Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy (SDG 13)", "Ensure availability and sustainable management of water and sanitation for all (SDG 6)", "Conserve and sustainably use the oceans, seas and marine resources for sustainable development (SDG 14)" and "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (SDG 15)". Key topics of the priorities 'global health' and 'systems of life' make a significant contribution to SDG 14 and SDG 15, the priority 'Global health' in particular also to SDG 2 ("End hunger, achieve food security and improved nutrition, and promote sustainable agriculture") and SDG 3 ("Ensure healthy lives and promote well-being for all at all ages"). The priority 'quantum systems and materials for the future' contributes significantly to ensuring "access to affordable, reliable, sustainable and modern energy for all (SDG 7)" and building "resilient infrastructure, [promoting] inclusive and sustainable industrialization, and [fostering] innovation (SDG 9)".

#### SPECIFIC INSTRUMENTS FOR FUNDING RESEARCH

Research excellence requires appropriate framework conditions and sufficient finance, both in terms of the provision of infrastructure (see chapters 6: Digitalisation and 7: Infrastructure) and resources as well as the promotion of early stage researchers. The University of Vienna has carried out a number of measures to help our academics be successful in an increasingly competitive research environment.

# INSTITUTIONAL PROMOTION OF INTER-FACULTY STRUCTURES (CROSS-DEPARTMENTAL STRUCTURES)

Innovation today requires multidisciplinary approaches and takes place particularly at interfaces between fields of research which, in some cases, are very far apart. In order to build up critical mass in areas with high potential, the University of Vienna is continuing to establish flexible cross-departmental structures. This concerns areas located between several faculties or even between several research institutions in the Vienna area. Flexible, innovative structures across subjects and faculties promote multidisciplinary thinking and build bridges between disciplines, and here the aim is to support research in the strategic priorities. The internal support mechanisms have been further developed compared to the last Development Plan on the basis of previous experiences.

*Research networks* are drivers of academic innovation and starting points for the further development of strategic priorities and support joint projects, publications, applications for third-party funding and outreach activities. Research networks can also be established between several universities and can be starting points for joint projects as part of other FWF clusters of excellence (see Chapter 3: International and National Cooperation). *Research platforms* are set up in competitive procedures to initiate particularly innovative, interdisciplinary projects, including those that have little chance of being funded by conservatively acting funding bodies. Adjusting the content for research networks/strategic priorities is desirable but not necessary. Research platforms receive start-up funding for four years, with an option of extending for another two years. Research platforms serve the purpose of acquiring further third party-funded projects that carry on their research activities.

*Inter-university cluster projects* build new bridges between basic research and patient-oriented research ('bench-to-bedside') and were set up jointly by the two universities to strengthen cooperation with the Medical University of Vienna. These projects are set up for a period of three years as part of competitive selection processes with international review (see chapter 3: International and National Cooperation). They have proven successful and need to be expanded if possible. After conclusion of the start-up support by the two rectorates, these are expected to support themselves (especially by acquiring third-party funding).

To ensure that cross-departmental structures fulfil their function as well as possible, it is essential to clearly define their relationship to faculties and centres in the future. Research platforms and research networks complement the established organisational units of the faculties/centres while going beyond the boundaries of subjects and faculties. In future, third-party funds and staff will be clearly allocated to the faculties/centres of those academics involved in the application. At the same time, the amount of thirdparty funding acquired, which draws on networking across different subjects and faculties within the cross-departmental structures and corresponding joint research proposals, is taken into account in their evaluations, of course. These transparent regulations provide a basis for productive cooperation based on trust between faculties/centres and cross-departmental structures.

#### PROMOTING AND FACILITATING THIRD PARTY-FUNDED RESEARCH

The acquisition of third-party funding is a backbone of research at the University of Vienna. Third-party funding enables research projects to be carried out and is also a sign of quality and relevance. It promotes early stage researchers by providing doctoral candidates and postdoctoral researchers with financial security and integrating them in an active research environment. It also contributes to the innovation cycle in both basic research that is open to application and in applied research. Examples of high-quality applied research are projects carried out as part of the 2nd pillar of Horizon Europe, the FFG or Christian Doppler Laboratories. In the coming years, the University of Vienna aims to further increase third-party funding from quality-oriented, competitive procedures and expects its employees to make corresponding efforts. Excellence and relevance of research are decisive guidelines for the third-party funding to be acquired.

Third party-funded projects must meet the ethical standards of the University and the requirements of state aid law. Funding should be raised for projects that are in line with the University's mission as an education and research institution. Third-party funding in the area of application-oriented research should contribute to the innovation cycle and also be used for knowledge exchange and technology transfer (see Chapter 4: Impact of the University on Society – Exchange of Knowledge).

Promoting basic research and application-oriented research is a priority at the University. In addition to research from the global budget, externally financed research projects are also supported from the global budget. This applies in particular to FWF projects, for which the University currently has to cover the entire overheads itself.

EU state aid rules prohibit using the global budget to cross-finance applied research whose results are exploited by third parties with a commercial orientation. Here, coverage of the full costs is required in any case. To increase the third-party funding activities of its academics, the University of Vienna will continue to rely on its tried and trusted support structures.

Effective measures to increase third-party funding activity are based on a culture of appreciation. It conveys that third-party funding is essential for the success of the University and its members, especially for the promotion of early stage researchers. Since the benefits, necessity and opportunities for acquiring third-party funding vary greatly from one subject area to another, such a culture must be developed on a discipline-specific basis. The aim is to impart this culture to early stage researchers in particular to support their careers and help them acquire third-party funding themselves. The University will analyse the potential of researchers in terms of current and future funding opportunities, make them individually aware of opportunities for acquiring third-party funding and support them in the application process. This is done by the experts at the Research Services and Career Development service unit by identifying suitable funding opportunities, approaching potential applicants individually, providing advice during the application period and providing support throughout the project. Here there is a particular focus on the acquisition of EU projects. As part of Horizon Europe (2021-2027), the University of Vienna plans to continue and strengthen the very successful focuses established in the excellence and mobility programmes of the 1st pillar which are running in this area (in particular ERC grants, Marie Skłodowska-Curie Fellowships). As of August 2023, academics at the University of Vienna have been awarded a total of 121 ERC grants. This makes the University of Vienna one of the 25 most successful institutions in terms of the number of ERC grants in the CORDIS database of the EU.

A particular focus when supporting academics in the acquisition of ERC grants is placed on areas that are promising due to their size and potential. Identification (scouting), activation and support (mentoring) of academics with ERC grant potential plays a major role here.

In the more application-oriented basic research of the 2nd pillar ('Missions', 'Global Challenges and Industrial Competitiveness'), there is high potential for increasing third-party funding. Through this research, the University can also contribute to the Sustainable Development Goals (SDGs) and to the fulfilment of its social responsibility. Based on the strategic priorities of the University, more applications need to be submitted in funding lines of the 2nd pillar.

The aim of the 3rd pillar of Horizon Europe is to bring innovations more quickly to the market and, in this way, to create growth and employment. Due to its subject profile, so far the University of Vienna has traditionally been less active in this area. With regard to the overall strategy of the University of Vienna to promote entrepreneurship and spin-offs (see Chapter 4: Impact of the University on Society - Exchange of Knowledge), programmes in the 3rd pillar should be advertised more, appropriate incentives should be provided and support measures should be offered. Leaders of successfully acquired projects of excellence are supported through centralised and decentralised services that cover the entire project duration and, in particular, relieve coordinators of EU projects of administrative tasks. Measures which are effective in the long term concern the recruitment of academics who are motivated and suitable for the acquisition of third-party funding. Demonstrable thirdparty funding successes and the potential to acquire prestigious

grants and major projects play an important role in new professorial appointments, in the evaluation of candidates in the tenure track procedure and in the allocation of resources (see Chapter 5: Employees).

The University of Vienna also fulfils its social responsibility by seeing relevance of its research as an important criterion. It understands the relevance of research as a way to help anticipate and overcome societal challenges and pressing issues of the future. It is also necessary to transfer the results of university research to an even greater extent to society, and to make them available (see chapter 4: Impact of the University on Society – Exchange of Knowledge).

## PROMOTION OF EARLY STAGE RESEARCHERS

Doctoral candidates and postdoctoral researchers are of vital importance for the development of research at the University of Vienna. For the next generation of academics, the best possible framework conditions should help them to make significant contributions to their academic field during their time at the University and to qualify them for a professional activity inside and outside the University.

**DOCTORAL EDUCATION.** Doctoral education qualifies candidates to carry out independent academic work. According to the principle of 'education through research', it is supporting doctoral candidates to help them develop and become integrated in the international academic community as young academics (in the sense of early stage researchers), to carry out research independently with good supervision and to acquire professional and also personal competences. Doctoral candidates at the University of Vienna acquire key competences that qualify them for their further professional careers, either inside or outside universities.

Doctoral education is a high priority at the University of Vienna. This is expressed by the fact that the funds used for this purpose have been significantly increased as part of the new university funding scheme and that the structure of education has been fundamentally reformed. As part of this reform, the University of Vienna has created flexible structures with doctoral schools that meet the highest quality criteria. The doctoral schools of the University of Vienna establish supervision structures and quality assurance processes that are based on international standards, offer structured education programmes and increase the mutual obligations of supervisors and doctoral candidates. They are funded transparently on the basis of indicators (by 'matching' doctoral positions introduced by supervisors and completed doctorates) and have significant funds to provide targeted support for their doctoral candidates. Doctoral schools are characterised by the fact that each doctoral candidate has access to more than one supervisor, actively participates in the academic discourse and interacts with other doctoral candidates. They enable both disciplinary and interdisciplinary education, ensure the academic socialisation of doctoral candidates and promote the development of a peer culture.

Regular exchange within the schools takes place in various formats (e.g. research seminar, excursion, retreat). Schools ensure that doctoral candidates are integrated in the academic community, e.g. through presentations at international conferences and workshops and through publications in formats suitable for the subject. The University is in the process of introducing doctoral schools that cover all subject groups. Within the framework of the respective legal possibilities, it is being examined if new instruments could also be introduced in individual doctoral schools, such as a combined master's and doctoral programme (see chapter 2: Studying and Teaching). Such an extensive paradigm shift requires detailed discussions and can be seen in different subject cultures and from different perspectives.

### SUPPORT FOR POSTDOCTORAL RESEARCHERS AT THE UNIVER-

SITY OF VIENNA. Doctoral education at the University of Vienna is already very well organised with the introduction of the new doctorate (from 2010) and the doctoral schools (from 2020) and will be further consolidated in this development planning period by setting up doctoral schools as extensively as possible. As a next step in the promotion of early stage researchers, the University of Vienna will focus on promoting and supporting postdoctoral researchers. Postdoctoral researchers are key service providers in research and teaching. It is not only at the University of Vienna that the group of postdoctoral researchers is very heterogeneous in terms of their specialisation, the type of funding they receive (global budget, thirdparty funding or their own fellowships such as MSCA) and the extent and duration of their employment. However, they are all at a challenging stage where the course for their future careers is being set.

Around 1,200 postdoctoral researchers were employed at the University of Vienna in 2021, with just over half of these funded by third parties. The University of Vienna would very much like to promote and support specifically this large pool of early stage researchers to provide them with the skills required in the research and innovation ecosystem. It is also important to show them alternatives to the traditional academic career path outside the University of Vienna, e.g. a variety of careers in industry, business or the public sector.

As a first step, a *survey* of this very heterogeneous group of postdoctoral researchers is planned so that tailored continuing education and training packages can be designed that include *coaching and mentoring measures* as well as *transferable skills workshops*.

An important element is the early *onboarding* of the postdoctoral researchers. Introductory workshops are designed to help postdoctoral researchers formulate their needs and objectives for the remaining postdoctoral period as early as possible. These workshops allow early stage researchers to network and form cohorts, and they provide a starting point for the creation of needs-oriented groups focused on carrying out further measures. The aim is to show the entire range of possible career paths and, in this way, to help researchers manage their own expectations. Accompanying mentoring/coaching is then used so researchers can plan and carry out the next steps in line with their own career decisions.

The group-specific continuing education and training measures based on onboarding include workshops on improving teaching competence, research management or acquiring entrepreneurial skills, depending on the career path being pursued. This can build on already successfully established formats such as *entrepreneurship education and innovation labs (ilabs)* (see chapter 4: Impact of the University on Society – Exchange of Knowledge). Many of the skills acquired are *transferable skills*, i.e. they can be applied regardless of the later career choice. For example, entrepreneurial skills are not only attractive for business, they are also very helpful when setting up an academic working group, setting priorities and making decisions. Funding bodies (e.g. FWF, FFG, WWTF) and partners from industry need to be involved when designing the programmes.

At the end of the postdoctoral phase, support should be provided in the form of specific measures to prepare for job interviews, for instance. In addition to involving professional coaches and obtaining peer feedback, university *alumni/alumnae* can also provide important stimuli here. This comprehensive strategy aims to enable all postdoctoral researchers to have a productive, professionally fulfilling time at the University of Vienna and to enable them to make their next career leap.

All of these measures take into account the diversity of the postdoctoral researcher group in terms of gender, age, social background and ethnicity. The diversity of careers is considered a resource and a responsibility insofar as difference must not be an obstacle.

However, the University of Vienna is aware that this stage of their career and life is particularly challenging for female postdoctoral

researchers, who often take on additional care duties, and can lead to a reduction in the proportion of women (leaky pipeline) in some disciplines.

The University of Vienna therefore offers female postdoctoral researchers the following additional programmes aimed at increasing the possibility of reconciling a professional career and care work:

- A new grant supports outstanding female academics at the postdoctoral stage whose academic careers are jeopardised due to a lack of funding (third party-funded project is over) and/or care duties. This grant is intended to help researchers complete academic work and/or project proposals and to prevent the termination of a promising career.
- The mobility & care fund supports the international mobility (lectures, conferences) of outstanding postdoctoral researchers by helping to cover the costs of travel, accommodation and/or childcare.
- The Children's Office also provides various childcare formats to help researchers achieve the right work-life balance and to enhance internationality and mobility in connection with childcare duties: flexible, age-independent and needs-oriented childcare (Flying Nannies) as well as fixed childcare for children aged 0.5 to 6 years in five children's groups at three locations close to the University. Particular focus is placed on the needs of international families (language support, networking, multilingualism in meetings with parents).
- The postdoc:muv mentoring programme supports female postdoctoral researchers with a three-semester career development programme combining the different formats of mentoring, coaching and training.





#### WHY STUDY?

GRADUATES ARE DESIGNERS AND PROBLEM SOLVERS OF THE

**FUTURE.** With a constantly changing world and many societal challenges (such as climate and war, demographic change and social insecurity, digitalisation and artificial intelligence), the University of Vienna's task is to qualify graduates in such a way that they can actively and creatively contribute to solving problems with their knowledge and actions, develop new ideas and, in this way, take responsibility for the future into their own hands. The wide range of disciplines at the University of Vienna enables students to learn within and beyond their own subject area, which is important in particular when it comes to shaping the future and problem-solving skills.

Our students gradually learn how to take an academic approach to deal with the relevant topics of the subject and beyond, and they are able to assess and evaluate changes when dealing with 'bodies of knowledge'. They follow developments in their subject and are able to understand and categorise them. They can acquire new areas of knowledge, educate themselves further and can competently categorise new findings which emerge.

As experts who are experienced in their own subject, they can also make the necessary links, carry out joined-up thinking, communicate with experts from other subjects and work together to come up with new solutions. Graduates of the University of Vienna are aware of the indispensable contribution that academic knowledge makes to improve society, and they fulfil this responsibility both in their professional environment and as citizens. As personalities, they have an impact going beyond merely their competences in their subject and, as problem solvers, they provide constructive suggestions in the respective discourses of today and tomorrow. In view of increasing science scepticism, our aim is for graduates to counteract this trend with the competences they acquire at the University of Vienna.

#### KEY POINTS FOR DESIGNING DEGREE PROGRAMMES.

The University of Vienna's strong focus on research means new developments in courses are always understandable and easy to grasp for students ('research-led teaching'). Academics contribute their current research projects, research processes and research findings to teaching and make them available to students. By spending periods abroad, students have greater opportunities to become familiar with different study and research environments.

Students should develop their own spirit of discovery at an early stage, gradually build up knowledge and methodological competence, try things out in projects and be actively involved in ongoing research according to the possibilities in the subject. This approach means the degree programmes at the University are significantly different from predominantly practice-oriented and/or professionoriented training formats.

The dynamics of academic developments are already made accessible to students during bachelor's programmes. In the course of their studies, graduates learn that research continues to develop, that new findings lead to changes in the subject and that knowledge continues to develop dynamically. Research is a lifelong learning process par excellence. During their studies, graduates realise that competence development does not end when they graduate. Instead, a degree includes the ability to engage in lifelong learning. Every era has its challenges and issues. Graduates are able to grow with the changing challenges and remain learners so that, ultimately, they can deal with the challenges of the coming decades.

As part of its range of degree programmes and teaching, the University of Vienna is responsible for qualifying students in this sense. In addition to providing a qualification in a subject, a degree programme also provides orientation for life and professional requirements.

The degree programmes on offer take the form of bachelor's, master's and diploma programmes, as well as continuing academic education and training (see section: Continuing education and training).

• In bachelor's and diploma programmes, students learn the foundations of the subject and methodological knowledge. These programmes aim to impart basic academic competence in the subject. The University of Vienna will also encourage students to take an academic look at current social issues in bachelor's and diploma programmes and build bridges to developments in strategic priorities.
Graduates of bachelor's programmes can either decide to continue with a master's programme or enter professional life (with the option of starting a master's programme later). The University of Vienna does not currently plan to make any changes to the disciplinary structure of bachelor's programmes. New opportunities for bachelor's programmes are seen for the future – depending on additional staff resources – in the area of 'data science and artificial intelligence'.

• *Extension curricula* within the framework of bachelor's programmes offer students the opportunity to add to their range of qualifications however they want. Extension curricula are used, for instance, to deepen, specialise and broaden knowledge, to add new thematic dimensions and to acquire interdisciplinary competences.

Extension curricula have three main functions:

- building bridges to interdisciplinary/unrelated master's programmes
- addressing strategic priorities and current topics
- utilising synergies in the degree programmes on offer
- Master's programmes are designed to help students acquire their own academic qualifications with the aim of producing their own academic thesis documenting their ability to work independently on an academic topic. Various forms of master's programmes are available: consecutive in the subject of the bachelor's programme, in the form of a lateral entry in an unrelated subject (e.g. via extension curricula in the bachelor's programme) or as an interdisciplinary programme at master's level.

Especially in the area of (interdisciplinary) master's programmes, the University of Vienna sees an opportunity to further develop the degree programmes on offer with attractive new additions, including with regard to the strategic priorities of the University. In addition, the University of Vienna aims to be particularly attractive to international bachelor's graduates in this field. **NEW MASTER'S FIELD OF STUDY: 'CLIMATE – ENVIRONMENT – SUSTAINABILITY'.** The University of Vienna is expanding its existing range of degree programmes in line with the strategic priority of climate, environment, sustainability. The social relevance of this priority is based on the fact that the further development of the human race will require us to combat the ecological and social consequences of man-made climate change and ensure the longterm stability of the planet's environmental systems.

Climate change, biodiversity loss and environmental pollution, accelerating changes in land use, resource consumption and energy utilisation are examples of highly complex global challenges and require integrated and interdisciplinary cooperation.

Solutions to the pressing questions of how Earth as a system can be kept in a stable, sustainable and fair condition can only be developed using a multidisciplinary approach. The well-being of the world's population, which is expected to grow to around 10 billion people by 2050, requires us to ensure that the health of planet Earth as a space to live remains intact on a fair and lasting basis for all of its inhabitants. The urgency is also reflected in the 17 UN Sustainable Development Goals.

As the largest educational institution in Austria, the University of Vienna is aware of its responsibility (see Chapter 8: Sustainability) and uses the opportunities in the areas of studying and teaching to qualify the next generation of teachers, social actors, decisionmakers and academics.

Extension curricula on this topic are offered at bachelor's level and new extension curricula are being developed. Where possible, this topic should be addressed in regular courses, depending on the subject. A basic MOOC with the participation of academics from various disciplines is going to be developed and will be available to students of all subjects as well as teachers for use in their own subject-related courses. The University of Vienna combines the expertise of various disciplines in this field and brings them together in degree programmes at master's level.



#### Diagram 14: Master's field of study: 'Climate – environment – sustainability'

The master's programmes mentioned are characterised by the fact that they cover different aspects of the topic, are coherently coordinated and form an entire field of study on Climate, Environment, Sustainability. Students with a disciplinary bachelor's degree choose a suitable, subject-specific master's programme from this field of study and, here, the individual master's degree programmes are linked by joint seminars, project modules and courses. Students also acquire interdisciplinary competences. Practice-oriented questions are covered in interdisciplinary teams. In this way, students from different disciplines learn the importance of different approaches and that solutions require cooperation among many people – something that characterises this professional field as a whole. It is envisaged that master's programmes in this field of study will combine the acquisition of in-depth specialist knowledge with interdisciplinary competences (T-shaped education). The horizontal component includes interdisciplinary cooperation, communication and teamwork as well as ethical and legal aspects, while the vertical component represents in-depth expertise in a subject area. This education enables graduates to act flexibly, tackle complex problems and develop interdisciplinary solutions.

#### HOW TO STUDY TODAY

ON THE WAY TO BECOMING A UNIVERSITY EMBRACING THE DIGI-TAL AND ON-SITE REALM. Universities are facing new challenges on account of new developments in studying and teaching that recently emerged during the coronavirus pandemic and because of AI innovations. Teaching and learning formats are continuing to develop rapidly. Students and teaching staff are gaining new experiences on many levels. The University of Vienna will embrace innovations in teaching so it can remain an attractive place of teaching and learning for the next generations of students and academics.

The University of Vienna has set itself the goal of developing into a 'university embracing the digital and on-site realm' so it can combine the advantages of the digital world with the opportunities for personal exchange in the best possible way in a physical face-toface environment. A university embracing the digital and on-site realm is a university that combines traditional and innovative faceto-face teaching concepts with high-quality interaction using digital technology and online teaching/learning environments to provide students with flexible, interactive and time-independent learning opportunities. Reliable, easily accessible and barrier-free digital resources and tools support independent and cooperative teaching and learning, make it easier to provide feedback that promotes learning, teaching and motivation and help to implement performance assessments and examination formats that focus on understanding and problem-oriented use of knowledge.

Studying at the University of Vienna should prepare graduates to deal with digital sources, methods and tools in the future, including those that are not yet known today, to adapt to constantly new technologies and emergent applications (such as AI) and to critically evaluate, control, help shape and successfully implement these developments as responsible people.

The digital options are based on a strong face-to-face concept. The University of Vienna is and will remain an attractive physical place

of learning for students (in courses and beyond), where exciting interactions about the subject and networking with other students and lecturers take place and personal development is promoted. The University provides the physical space for subject-related and personal learning processes and consciously helps to shape these processes. However, it will also use the available digital options to make the range of courses more inclusive, multi-faceted and futureoriented. In line with its goal of being a 'university embracing the digital and on-site realm', the University of Vienna also offers support structures, creates teaching and learning environments with suitable degree programmes and develops a culture of shared learning, research, work and life at the University.

Due to the heterogeneity of the subjects and degree programmes, study-related concepts need to be developed in order to bring the general target image of a university embracing the digital and onsite realm (see below) to life. Specific implementation concepts are developed with regard to the respective subject/degree programme and the composition of the students based on the guiding principles described below. A pilot project in the area of teacher education has been launched. The results and experiences gathered in the pilot project form a starting point for further activities in other degree programmes at the University of Vienna.

#### QUALITY OF TEACHING AND STUDYING AS AN OVERALL OBJECTIVE.

A university embracing the digital and on-site realm has special requirements in terms of the self-image and roles of teachers and students: both students and teachers contribute to the quality of a degree programme in their own particular way. The self-image and range of competences of teachers is developing from the transfer of knowledge to the design of teaching and learning environments, support for independent learning, moderation of learning and exchange processes, and learning support and guidance.

- Students understand their degree programme as a programme structure, interpret the curriculum with a view to their own goals and shape it accordingly. They take responsibility for their own learning and their learning process. Teachers shape and support studying as accessible, socially competent and communicative partners.
- Overall, studying is characterised by a high level of interactivity within and between teachers and students: within the academic community, primarily for identity formation and professionalisation, and across subject boundaries for interdisciplinary and transdisciplinary exchange.

- The entire range of (digital and classroom-based) teaching and learning settings are used for studying. Teachers and students are open to didactic and technological innovations. The teaching and learning environments are characterised by a clarity of goals and coherence (with a view to the overall objectives), a high level of interactivity and supportive feedback. This applies to both teaching and examinations.
- Competence-oriented examination formats beyond conventional written examinations are being developed and increasingly used (e.g. project-based testing, portfolios, adaptive testing). The use of technical aids for digital on-site examinations and as an alternative examination method needs to be expanded. Digital examination formats can also be used if independence can be ensured when they are processed.
- The (further) development of teaching and learning competences is being promoted. Easy access to digital tools and content in this area is guaranteed. Committed teachers are recognised for their teaching (e.g. through teaching awards, positive effects on their career development) and contribute to the further development of innovative teaching methods and curricula.
- The quality of teaching and learning benefits from lively cooperation and open exchange between teachers (e.g. coordination of teaching content within the degree programme and individual modules, sharing of documents, for example via Moodle, participation in OER platforms).

#### CREATING INVITING AND PRODUCTIVE STUDY ENVIRONMENTS

To become a university embracing the digital and on-site realm, the premises at the University will be gradually designed and equipped in such a way that teaching and learning, communication and collaboration, commitment to academic knowledge and society as well as personal development are stimulated and given the best possible support (see chapter 7: Infrastructure).

- Teaching and learning environments are designed to be multifunctional for face-to-face, online and hybrid teaching and can be used flexibly for these purposes (for teachers and students).
- Even if conventional lecture halls are increasingly giving way to multifunctional rooms, there are still areas available for examinations, lectures and events including social events.
- Welcome desks and info points at larger locations of the University of Vienna with personal contact complement digital orientation aids and information systems.
- Workplaces are being created for students and these are suitable for self-study, participation in online events or cooperative learning formats.
- Students are gradually introduced to digital research competences, learn about methods and tools as well as open science practices (open educational resources, open data, open access) and try them out for themselves.
- Wherever possible, locations of the University of Vienna offer a place of retreat for students (self-study, individual learning environments for quiet work), but also for teachers and researchers.
- The University offers access to catering (food as a possibility of making social contacts and time-saving exchanges, without consumption necessarily being required).

**SMART SUPPORT SYSTEMS.** A university embracing the digital and on-site realm is characterised by the fact that teaching and learning are facilitated and improved by providing various support services and resources. Digital tools are useful in particular for orientation and navigation in several respects:

- They make it easier to access teaching and learning materials at any time.
- They support spatial orientation, indicate locally available resources and support services, provide information about free workplaces (self-study, online learning, group work, labs), quiet rooms and services promoting health (e.g. healthy eating options, sports and fitness programmes).
- They are used for orientation in the curriculum and notify students about courses. They inform students about their study progress, suggest next steps and further courses, and provide support when drawing up timetables and for work/time planning.
- The University of Vienna's digital systems make communication within the University easier (e.g. contacting teachers, feedback, communication between students).

#### THE CULTURE OF A UNIVERSITY EMBRACING THE DIGITAL AND

**ON-SITE REALM.** A university embracing the digital and on-site realm requires further developments to be made based on the listed values and roles. Achieving the listed goals and their realisation in everyday university life requires open, relevant exchange and constructive interaction between all (groups of) people. A university embracing the digital and on-site realm:

- is characterised by a welcoming culture that appeals to both students and teachers, is interested in their goals and concerns and, at the same time, makes its own goals visible, invites people to participate and co-create and sees itself as a community;
- sees the many different backgrounds of students and teachers as an asset. It actively endeavours to create a diverse student body with sufficient space for students from a wide range of backgrounds, especially first-generation students. A conscious effort is made to ensure that differences of any kind (e.g. culture, language, gender identity, origin, etc.) do not lead to exclusion, and instead strengthen the community and ensure the potential for mutual learning is harnessed;
- supports the lively exchange of ideas, knowledge and arguments, the willingness to act together and support each other, as well as to reflect and deal with criticism constructively. Creating occasions and opportunities for this is the task of all university institutions;
- involves students in science communication. Later, as graduates and multipliers of innovation and university knowledge, they play an important role in communicating academic knowledge to the general public;
- accommodates students' life situations and their endeavours to achieve a 'study-work-care-life' balance – as long as this does not have a negative effect on the subject requirements and is possible with the resources available at the University. Different needs in terms of time and space, digital offers and on-site participation are taken into account as far as possible. For their part, students are aware of their own responsibility for their study progress and are prepared to invest the time and effort required to achieve this.
- fulfils the requirements for accessibility for students and employees with disabilities and works proactively so that everyone can participate in university life.



# Diagram 15: Support measures of the University of Vienna from orientation to graduation.

## FROM ORIENTATION TO GRADUATION: SUPPORT MEASURES AT THE UNIVERSITY

Studying is a dynamic process organised by the teachers and actively carried out by the students themselves. The University provides the framework and corresponding support programmes for teachers and students. Students will be successful in their studies if they play an active role, are committed to the learning process and take responsibility for their own study progress.

The aim of the University is to increase the number of students fulfilling the statutory requirements of active studying ('active studying') and reduce the duration of studies. Various measures described in this chapter serve this purpose. However, the most powerful instrument for increasing the number of students fulfilling the statutory requirements of active studying can be found in the legal framework, especially study law.

**PROVIDING ORIENTATION.** The University of Vienna establishes contact with potential students as early as possible and continuously improves information and communication channels while involving the target group. Prospective students actively find out about study options and their future degree programme and get to find out more about their own interests and strengths as well as possible career paths.

Care is taken to ensure that prospective students of different genders, origins, life situations and backgrounds are addressed. The University of Vienna is making a lot of effort to persuade women to study the STEM fields, particularly in subjects with a low proportion of women.

- Through various activities in the area of science engagement
  (e.g. as part of the Children's University of Vienna and
  UniClub) and as part of special programmes such as 'Pupils go
  to university' ('Schüler\*innen an die Uni') and 'Try out
  university' ('Studieren probieren'), the University of Vienna
  offers support to help address as many different groups of
  prospective students as possible. Care is taken to ensure that
  prospective students from different life situations and
  backgrounds are addressed (social dimension). Close
  cooperation with schools (educational counsellors) and boards
  of education makes it possible to provide targeted information.
  In addition, formats are offered to give pupils, parents and
  teachers an insight into university life.
- Digital, subject-related online self-assessments and the online tool uni:check (general information about studies) help prospective students choose a degree programme. They are being further developed and expanded.
- The University is continuously working on improving the admission procedures as well as the entrance exam procedures and aptitude tests. The focus here is on the digital provision of all information and preparation options as part of the entrance exam procedure. The admission procedure itself is largely digital.
- During the introductory and orientation period (STEOP), students review their choice of degree programme on the basis of the insight they have gained into their chosen subject and based on the performance requirements set in the examinations. If students wish to change their degree programme, they should do it as early as possible.
- The increasing range of STEOP mentoring/tutoring options enables experienced students to accompany beginners and promote communication, networking and community building in the subject. STEOP mentoring enables a classic win-win constellation for advanced and new students. Where possible, alumni/alumnae are used as role models.

• These measures strengthen networking and community building at the University of Vienna. Ultimately, actively influencing the decision for a particular degree programme enables a better fit between the student and the degree programme, which, in turn, should lead to a successful academic career at the University.

**PROMOTING ACTIVE STUDYING.** Active studying is crucial for students so they can enjoy the advantages and positive effects of learning as a boost to their own academic and personal development. The teachers' expertise in their subject and motivational transfer of knowledge have a major influence on learning success. In addition, strengthening students' ties to the University has positive effects on learning.

Various measures to support active studying are implemented at university level and at the level of subjects and degree programmes. Active studying

enables students to process the course contents in greater depth, promotes the independence and personal responsibility of students,

increases the motivation of students and their study success, promotes not only the acquisition of knowledge and important skills, but also personal development.

During the course of their studies, the University of Vienna supports its students with many activity-promoting measures and continuously improves the quality of degree programmes and teaching:

- At the University of Vienna, students who fulfil the curricular requirements are allocated the required course places (without a waiting period). A registration system for courses is used to provide the range of courses according to the recommended study pathway. The University is implementing this system across the board in all degree programmes in order to allocate course places fairly and to avoid waiting periods.
- When developing curricula, the examination of study feasibility plays a key role. Directorates of studies have an insight into the study and examination system, and the University can analyse the structure of the curricula using curricular key figures. These key figures help to recognise and eliminate structural problems related to study feasibility. This means the University of Vienna is actively committed to ensuring that students are able to study well and that their studies progress smoothly.

- The coronavirus pandemic in particular highlighted the relevance of (physical and mental) health and resilience. There are plans to pool together various health-promoting activities offered at and around the University of Vienna and to make them more transparent for students (e.g. sport, nutrition, mental health).
- Course evaluations are an important tool when continuing to develop teaching at the University of Vienna. They are carried out regularly and provide direct feedback for lecturers.
- In the 2022/23 academic year, a bachelor's survey was carried out to record students' experiences with their degree programmes and make improvements. These surveys make it possible to monitor study progress and study feasibility as well as various services and provide a basis for making further developments based on evidence.
- The rolling graduation survey is also used for quality assurance and contains questions on various topics from the perspective of graduates. The results are made available to the directors of studies and curricular working groups to help bring about curricular changes. The University of Vienna is actively committed to continuously improving its study programmes based on student feedback.
- University-level didactic qualifications at the University
  offer teachers a wide range of opportunities to improve their
  teaching and further develop their professional expertise in
  teaching at university level. They receive targeted support,
  particularly to help with the implementation of a 'university
  embracing the digital and on-site realm'. There is a mandatory
  basic qualification for newcomers to teaching, workshops on
  diversity-appropriate teaching and various other programmes
  to help teachers continuously improve their teaching.
  Certificate programmes formally recognise acquired
  competences. Teachers have access to higher education
  didactics experts for individual counselling. These measures
  help teachers align their teaching more towards the needs of
  students and promote the continuous development of
  university teaching.
- The University of Vienna attaches great importance to the design of examinations to give as much of a boost as possible to the competence development of its students. The aim is to carry out performance assessments in a transparent and timely manner and to provide students with feedback on their performance. In view of the possibilities offered by generative

AI, changes in examinations will also come soon. The aim is to move away from mere fact checking towards testing understanding and problem-solving skills. For written work in particular, the focus will be on the creation process. The University of Vienna sees this as an opportunity to promote academic work. In the coming semesters, there will therefore be experiments with new examination forms and formats, accompanied by intensive and open communication about these experiences. Teachers and examiners are aided by various support facilities such as the Center for Teaching and Learning to improve the quality of examinations and develop didactic concepts for examinations. The University of Vienna is actively responding to the challenges and is looking to implement a modern, quality-oriented examination culture. SUPPORTING GRADUATION. Writing academic theses is, in particular, a challenging task. This is all the more true if students already have a lot of professional or family commitments. The University of Vienna offers a wide range of support options to provide students with the best possible help during their graduation phase. Writing master's theses is a particular challenge. When they do this, students demonstrate their ability to work on a defined academic topic in a consistent, methodologically correct, independent and comprehensive manner (i.e. appropriate to the topic). It is the most extensive academic work done by students if they do not pursue an academic career.

- Good academic supervision of the thesis by the supervisor, who gives advice to help the student determine the topic and on how to proceed, plays a key role here. Supervisors are responsible for ensuring that the thesis can be completed within the planned workload (ECTS according to the curriculum). Students can usually choose their own topic and supervision (depending on the subject). The University supports students who have problems finding supervision. The University develops guidelines for students and teachers to help with the preparation of the academic thesis. There is an increasing focus on time and project management. Supervisors are available to provide students with further feedback when they are writing their academic thesis and to offer support when they are finalising it.
- In addition, interdisciplinary writing services are being expanded. Workshops and training courses on academic writing, time management and career orientation improve the relevant skills required for obtaining a successful degree and for the transition to the world of work.
- Students can also arrange individual advisory appointments to clarify questions about their graduation and career planning. Events to help expand networks and extensive online resources round off the offer.
- The University of Vienna is committed to ensuring its students graduate successfully and helps students with the transition to the world of work through career fairs, opportunities to contact employers and various alumni/alumnae activities.

## TEACHER EDUCATION AND TRAINING AS THE KEY TO A GOOD EDUCATION SYSTEM

Well-qualified teachers are the most important key to a good education system and, as a result, also to the future of the next generations. This means high-quality teacher education is a particularly important concern for the University of Vienna.

The academically sound, professional competence of teachers is a key factor for an equitable education that is fit for the future and also qualifies teachers to deal with major societal challenges. The digital transformation (e.g. digital teaching arising on account of the pandemic, new developments in learning coming from artificial intelligence) can serve as an example of how demands in terms of teachers' competences change within short periods of time and, overall, increase. It is therefore important to develop the ability to solve problems responsibly in the professional field and to keep up with new developments through a research-based teacher education programme. Future teachers should therefore be good conveyors of knowledge who are able to face and deal with changing challenges and problems. This also means that curricula in the teacher education programme must meet high standards in terms of the subject-specific academic, subject-specific didactic and educational components. Teaching practice integrated into the degree programme prepares students for professional requirements, but cannot replace an introduction to the profession.

STUDYING IN THE NORTH-EAST SCHOOLS' GROUP: JOINT QUALITY ASSURANCE. The institutions cooperating in the North-East Schools' Group (University College of Teacher Education of Christian Churches Vienna/Krems, the University College of Teacher Education in Lower Austria, the University College of Teacher Education in Vienna, the University College for Agrarian and Environmental Pedagogy, the University of Vienna) implemented a joint teacher education programme at secondary level (general education) in the winter semester of 2016/17. Quality assurance plays a major role in joint teacher education. For this, joint processes have been developed and established in the alliance. An evaluation concept covering the entire course of study provides indications of strengths, weaknesses and possibilities for improvement of the teacher education implemented in the alliance. These results will be taken into account in the necessary changes that are expected as part of the politically announced reform of education.

In recent years, the number of students working in schools has increased significantly, not only at master's level but also at bachelor's level. For students who teach in schools, this is, personally, a very challenging development. The University of Vienna is concerned that the quality of education will suffer because of this and that student teachers will be worn down early on due to the many different requirements and, ultimately, will not complete their studies or will leave the teaching profession.

The University is increasingly developing formats as a response to this life situation. In master's programmes, for example, courses in the afternoon and/or hybrid courses are offered.

A pilot project for a 'university embracing the digital and on-site realm' was launched covering the fundamentals of general education. In this respect, the University of Vienna also believes that schools and boards of education have a responsibility to support these teachers (e.g. by reducing their teaching commitments) so that they can complete their studies. CENTRE FOR TEACHER EDUCATION: UNIVERSITY HUB FOR THE

**TEACHING PROFESSION.** The Centre for Teacher Education is the organisational and coordinating hub for tasks related to teacher education at the University of Vienna and acts as an interface to the cooperation partners in the alliance and to external institutions (e.g. regional education board, schools). The Centre encourages the formation of networks between subject didactics centres and has the task of bringing the four pillars of teacher education closer together during studies, initiating joint research projects and promoting early stage researchers.

Following the growth of recent years and taking into account the circumstances caused by the pandemic, the focus is, in particular, on consolidating cooperation with the various schools. Cooperation with the seven so-called 'Kooperationsschulen plus' is particularly intensive and important. In the coming years, cooperation with technical and vocational schools and colleges will be further intensified and a qualitative expansion of school cooperation projects will be examined by introducing a 'researching school'.

Cross-sectional topics that have become the focus of interdisciplinary research and correspond to the rapid changes in our globalised knowledge and innovation society are covered at the Centre for Teacher Education:

- digital transformation (e.g. artificial intelligence) and its implications for teaching and learning
- education processes in the context of migration, inclusion and globalisation
- sustainability goals and their consequences for teacher education
- changed forms of organisation and structures of schools as a prerequisite for the teaching of tomorrow

These cross-sectional topics are considered in the education of future teachers. Digital transformation, new possibilities arising with the use of artificial intelligence and the associated changes in media technology place new demands on educational processes, which must address digital literacy in particular. Students should be aware of the new opportunities due to technology and use the resulting new concepts of teaching and learning competently at school with awareness of the problem. Furthermore, the goal in this respect is to have optional elements as part of teacher education programmes enabling students to acquire digital competences and learn to critically reflect on the significance of new technologies for teaching and learning (see chapter 6: Digitalisation).

The curriculum also includes topics such as climate change and sustainability goals or migration, inclusion and diversity in terms of gender, sexuality, religion or belief in classrooms and schools and the associated new challenges. Future teachers need sound knowledge as well as empathy and sensitivity in dealing with different learning requirements, values, worldviews and social conditions of the pupils. In view of current critical developments, trauma sensitivity must, not least, also be promoted. Therefore future teachers are trained more than ever before to act as school developers who are able to and want to actively shape the school. Supported by mentors and experts in subject didactics, students can apply the competences they have acquired as part of the teaching practices and try out new forms of teaching or innovative didactic approaches themselves, for instance.

Lifelong learning is of key importance for teachers. Research-led education and training programmes make it possible to link current subject-specific academic and educational topics and findings with subject didactic concepts. The goal here is to intensify cooperation with university colleges of teacher education in the field of continuing education and training of teachers. **REFORM OF TEACHER EDUCATION.** The Ministry's intention is to shorten the teacher education programme from 4+2 (4 years bachelor's and 2 years master's) to 3+2, with the reductions being made more or less linearly across the various parts of the programme. The University of Vienna believes that a switch to a 3-year bachelor's and 2-year master's programme only makes sense if it is accompanied by new formats of education and in-service training that increase the attractiveness of the teaching profession, including the education, and continue to ensure high quality education.

The University of Vienna and the university colleges of teacher education involved in the alliance are willing to create the possibility of a single-subject teacher education programme in subjects that are in demand (for a limited period of time) to contribute to the high demand for teachers in schools. It has discussed this proposal with many responsible groups (boards of education, university colleges of teacher education, student representatives) and reached an agreement that this would be a pragmatic way of temporarily softening the blow of the shortage in subjects that are in demand by providing faster and, at the same time, better qualified graduates. Similar to a school experiment and analogous to lateral entry, openness and pragmatism on the part of the federal and provincial governments would be desirable here. The University is responsible for the high quality of this degree and wants to work actively with the boards of education to successfully implement this.

# CONTINUING EDUCATION AND TRAINING

The University of Vienna has more than 70 continuing education and training programmes (master's programmes, university continuing education and training programmes, certificate courses). The postgraduate programmes make it possible for the students to acquire interdisciplinary, occupation-related and specialised additional qualifications. Most continuing education and training programmes are offered on a part-time basis. With its continuing education and training programmes, the University of Vienna supports lifelong learning and qualification at an academic level. Graduates of these programmes are able to use their competences to play a constructive role in shaping societal and professional challenges. The University of Vienna provides participants with the necessary knowledge and action competences so they can keep up with the latest developments in their respective fields and have the tools required to deal with their respective tasks. All programmes have to fulfil quality assurance criteria that meet international university standards. As with standard study programmes, quality is guaranteed and continuously monitored via certified processes from the establishment of a programme to its implementation and evaluation.

In the area of continuing education and training, the University of Vienna is able to build on its strengths in research and teaching. The focus of future offers will also be on further developing the programmes based on the six strategic priorities of the University of Vienna that are relevant to the labour market, increasing the interdisciplinarity of the offer and making teaching methods more flexible during implementation. Here, offers are developed together with leading academics with a view to the market and are established with a strong connection to professional practice in their application. It is the core objective of the continuing education and training programmes to address employed graduates who, besides their professional activities, want to attend a continuing education and training programme in order to further develop their qualifications and, in this way, open up additional career options. Moreover,

these programmes are also geared towards graduates of bachelor's programmes from Austria and abroad who are interested in one of the numerous continuing education and training programmes to enhance their career prospects. Specific continuing education and training programmes also address people in the post-professional stage of life as a target group. Various programme formats - master's programmes, university continuing education and training programmes, certificate courses - address different target groups and take the individual life and professional situations of learners into account. Short programmes in the sense of certificate courses meet the requirements of microcredentials (short educational programmes or certificates showing completion of such programmes). The continuing education and training programmes at the University offer different postgraduate teaching formats depending on the programme and target group - from face-to-face teaching to online teaching and hybrid formats.

Diversity of teaching formats makes it easier for working people and people with care responsibilities to participate in continuing education and training programmes. Lifelong learning therefore helps ensure equal opportunities for men and women in the world of work. The target group for academic continuing education and training is also expanded geographically because of the freedom of location and time flexibility. International students are targeted and international experts can be involved.

Courses at the University are characterised by a modern, participant-oriented infrastructure of seminar rooms, which also reflects the high quality of academic continuing education and training. Academic continuing education and training at the University of Vienna is setting innovative new trends in terms of technical infrastructure for digital and hybrid teaching. Qualitative and didactic criteria as well as a focus on the needs of the target group are the guiding principles when selecting the respective implementation formats. **PROGRAMME DEVELOPMENT STRATEGY.** In organisational terms, the possibility of a modular system needs to be expanded. In some areas, the modular structure means several certificate courses can be combined into one university continuing education and training programme. This makes flexible and individualised learning paths possible, and these are going to be expanded. From a subject-specific perspective, programme development is also geared towards the strategic priorities of the University of Vienna if a corresponding target group is available.

Here are some examples with regard to the strategic priorities of the University of Vienna:

- *Global health:* physical, mental and social dimensions of health: The University of Vienna offers a range of psychotherapeutic (further) education and training programmes and will continue to expand these in the future. With the introduction of the non-degree bachelor's programme Basics of Psychotherapy (equivalent to the general introductory course to psychotherapy) and with several psychotherapy-related, subject-specific master's programmes (in cooperation with psychotherapy-based disciplines), the possibility of obtaining a qualification in the field of psychotherapy in the form of non-degree bachelor's and master's programmes at the University of Vienna is being continued and expanded. Apart from more recent programmes in the area of Clinical Pharmacy, programmes in Pharmaceutical Quality Management and in the area of physical exercise have been included for many years.
- *Culture, education, democracy:* There are plans to develop a certificate course in the field of Science Communication. The aim of the certificate course is to impart qualifications that are central to the transfer of knowledge to society and science communication. A wide range of LL.M. programmes in the

field of law, a series of master's programmes in the field of international affairs, as well as courses in language teaching, librarianship, diversity competence, Philosophical Practice, Studium Generale, etc. have been established.

• *Climate, environment, sustainability:* Based on the longstanding university continuing education and training programme Risk Prevention and Disaster Management, the possibility of establishing a new international continuing education and training programme on disaster management is being examined.





# 3. International and National Cooperation

The University of Vienna has defined six strategic priorities in which it aims to make a greater contribution to meeting the grand societal challenges of our time by developing relevant approaches to solutions (see chapter 1: Research and Career Development of Early Stage Researchers). This requires synergies and increased interdisciplinary cooperation both within the University and at regional, national and especially international level. Cooperation is also necessary in order to jointly develop and operate infrastructures, improve the quality of research and teaching or optimise administrative processes by adopting best practices.

The University maintains intensive research contacts with renowned international universities and research institutions. Teaching and research cooperation projects make a significant contribution to being at the forefront internationally. Moreover, internationalisation as a core element of openness to the world is part of the educational mandate of the University of Vienna.

In the context of cooperation projects it needs to be ensured that aspects of the foreign interference policy and measures to ensure knowledge security are taken into account. The University will compile bundled information on this topic.

Our graduates need intercultural competences, international experience and contacts as well as good language skills, especially those acquired during stays abroad, in order to contribute to solving the current and future challenges of this globalised world. National and international synergies enable the University of Vienna

to attract talented students and (early stage) researchers;

- to offer study programmes whose graduates are successful on the national and international job market and when applying for PhD programmes;
- to provide attractive conditions for teaching and research so that academics like working at the University of Vienna.

### INTERNATIONAL COOPERATION PROJECTS BASED ON CONTRACTS

The University of Vienna concludes cooperation agreements with selected international, research-oriented universities in order to secure the mentioned instruments and effects of internationalisation. A special focus is placed on bilateral strategic partnerships with selected top non-European universities and multilateral strategic networks within Europe.

*Strategic partnerships:* The University of Vienna currently maintains a strategic partnership with five renowned non-European partners: the Hebrew University of Jerusalem (since 2015), the University of Chicago (since 2016), Fudan University, Kyoto University and Peking University (all since 2019). A new quality of international cooperation is achieved within these initiatives. Successful strategic partnerships stimulate sustainable academic exchange across academic disciplines and contribute significantly to the visibility of the University of Vienna within the international academic community. By concentrating on a limited number of leading research universities outside the EU, university-wide cooperation projects can be intensified, while at the same time ensuring efficient and strategic use of the resources made available for that purpose.

The aim of strategic partnerships is particularly close cooperation starting with an intensification in the area of research in student mobility and in the area of experience exchange at management and administrative level.

In the coming years, the main focus will initially be on revitalising and consolidating partnerships after the pandemic. In addition, the set of strategic partners will be evaluated and, if necessary, adjusted in line with available resources and strategic considerations.

*European Circle U. alliance:* Circle U. is one of 44 university alliances that have been founded in recent years as part of the European Union's European Universities initiative. Circle U. includes nine universities: the University of Vienna, Aarhus University, Humboldt-Uni-

versität zu Berlin, Université Paris Cité, the University of Belgrade, the University of Louvain, the University of Oslo, King's College London and the University of Pisa. In November 2021, the University of Vienna joined the alliance as an associate member. A new project phase will begin in November 2023, in which the University of Vienna will become a full member.

*Membership in Circle U.* will deepen the cooperation established by the University of Vienna with the eight partner universities in the areas of study, teaching, research and administration in the long term and bring new opportunities for the internationalisation of the everyday life of students, academics and employees of the University of Vienna. The University of Vienna plays an important role in the alliance by coordinating the Circle U. activities to promote early career researchers and research cooperation.

*Regional CENTRAL network:* CENTRAL is a network of five researchoriented capital city universities in Central Europe – Humboldt-Universität zu Berlin, Charles University (Prague), the University of Warsaw, Eötvös Loránd University (Budapest) and the University of Vienna. Founded in 2014 and originally funded by the German Academic Exchange Service (DAAD), the University of Vienna took over coordination of the network for four years in 2021. Coordination will be handed over to Charles University at the end of 2024. The CENTRAL network's previous focus on the promotion of early stage researchers was retained and supplemented by the aspect of greater public involvement in order to achieve greater visibility and to raise the profile for CENTRAL universities in this emerging academic area against the background of geographical proximity, shared history and cultural affinity.

It is planned to establish a skills development academy for early stage researchers and to initiate a leadership programme for graduates of CENTRAL universities in the coming years. In addition, Taras Shevchenko National University of Kyiv will participate in selected CENTRAL activities as an associated partner from 2023.

*Use of existing research cooperation projects:* The University of Vienna will expand its international research cooperation projects in the coming years and use existing cooperation projects intensively. Worth mentioning here are, in particular, the European Southern Observatory (ESO), the Centre Européen de Calcul Atomique et Moléculaire (CECAM) and participation in several ESFRI/ERIC research infrastructures (see chapter 7: Infrastructure).

*The GUILD and other European university networks:* The University of Vienna is a member of numerous organisations and networks that have set themselves the goal of further developing the European

Higher Education and Research Area. The most important membership for the University of Vienna is the membership in The GUILD (The Guild of European Research-Intensive Universities), which allows an exchange between similar universities at an institutional, academic and technical level. In addition, the University of Vienna is involved in the European University Association (EUA), the umbrella organisation of European universities and national rectors' conferences, in which more than 800 universities from 48 European countries are represented. The University of Vienna is also represented in the Network of Universities from the Capitals of Europe (UNICA) and the European University Foundation (EUF).

*Trilateral partnership Berlin-Vienna-Zurich:* Through the exchange at rectorate level with the Humboldt-Universität zu Berlin and the University of Zurich as part of this network, new insights and findings are discovered about the organisation of universities that are run in a modern way. This cooperation now goes beyond the rectorate level and also covers the area of central services.

## MOBILITY PROGRAMMES AND INTERNATIONALISATION@HOME

Mobility is important because it opens up new perspectives on students' and teachers' own academic discipline, on their own country, on the host country and on themselves. It is also an important factor in enhancing the University's international standing and reputation. Students and academics who come to the University of Vienna as part of mobility programmes and have gained positive experiences here will, in the best case, also remain associated with the University of Vienna in their further academic career.

Students and academics at the University are active 'ambassadors' of the University during their mobility stays abroad. Both contribute to increasing the visibility of the University of Vienna in the international academic community.

The opportunity to study abroad at a selected partner university is an important element in making studying at the University of Vienna attractive: International student mobility is particularly widespread in the philologies and cultural studies.

*Student and teacher mobility: Erasmus*+ represents a vital tool in the field of student and teacher mobility and makes it easier to spend periods at one of the numerous partner universities inside and also outside the EU. The University of Vienna has concluded Erasmus agreements with around 350 universities, mainly in Europe.

The University of Vienna also uses complementary programmes to promote the mobility of students and teaching staff outside Europe, namely the Non-EU Student Exchange Program, short-term grants abroad and Erasmus+ international mobility programmes for students and teaching staff. The existing system is well established; improvements and innovations in recent years have had a clear focus on quality assurance and the digitalisation of processes (see chapter 6: Digitalisation).

These developments will continue to be driven forward in the coming years, both at a centralised and decentralised level.

Short-term mobilities: As everywhere else, student mobility in recent years has been under the impact of the COVID-19 pandemic but has now almost reached pre-pandemic levels. However, the pandemic also gave the University of Vienna the opportunity to rethink mobility and focus more on short-term mobilities in order to open up alternative options for students for whom semester mobility is not an option. In this way, the University of Vienna wants to reach new target groups. An important instrument for this is the new Erasmus+ format Blended Intensive Programmes (BIPs), which combine short periods of physical mobility (e.g. a project week, summer school) with online teaching. BIPs must be initiated, organised and taught by the teaching staff. Fortunately, the new instrument has been well received by teachers at the University of Vienna. The University of Vienna sees great potential in BIPs to expand mobility options. Furthermore, short mobility stays will be promoted and implemented particularly as part of Circle U.

In the future, the University of Vienna will also focus more on Circle U. for the support for long-term mobility (i.e. exchange semesters), with whose partner universities new Erasmus+ agreements are constantly being concluded in other academic disciplines.

*Outgoing mobility:* A targeted information policy and clever marketing of the mobility programmes are a prerequisite for a high level of student participation in the mobility programmes. During the pandemic, new digital information events were introduced for potential or future outgoing students. The digital format was specifically retained for outgoing students because it allows significantly more students to be reached.

In addition, the University of Vienna can draw on well-established recognition options in the degree programmes so that courses completed by students at partner universities can be credited to the relevant degree programme. Curricula can also include alternative extensions, compulsory elective subjects, etc. for this purpose.

*Incoming mobility:* The University has established itself as a popular destination in the incoming area. In this area it is planned to implement quality assurance measures, such as increasing offers aimed at the social integration of incoming students or expanding the range of courses taught in English. Orientation sessions for incoming students have been held physically again after the pandemic because such a format offers incoming students significantly better networking opportunities at the beginning of their stay.

*Further development of partnership agreements:* The portfolio of partnership agreements is to be further developed with a focus on quality in close coordination with the academic disciplines. Here,

the established quality criteria for setting up Erasmus+ agreements are applied (the quality of the university, examination of the compatibility of the study programmes, full utilisation of exchange places). The portfolio pays particular attention to partnerships with universities in the UK, which will be continued as a special track for third countries within the Erasmus+ programme. In addition, the expansion of student mobility with Circle U. partner universities is a particular focus (see above).

*Erasmus+ financial management:* The University of Vienna is taking advantage of the relocation of Erasmus+ financial management from the Austrian Agency for Education and Internationalisation (OeAD) to the universities to intensify the associated controlling options; in particular, the implementation of Erasmus+ programme priorities such as inclusion and green mobility will be taken into account.

Internationalisation@home: International academic staff, international students (who complete an entire study programme at the University of Vienna) and incoming students and teaching staff in the exchange programmes make a significant contribution to internationalisation@home by introducing an international perspective to the University of Vienna. Virtual cooperation between teachers, e.g. in the form of Collaborative Online International Learning (COIL), also gives local students the opportunity to work together with students from other universities. This form of cooperation is strongly promoted within the framework of Circle U. and constitutes an integral element of the new Erasmus format Blended Intensive Programmes (BIPs). Furthermore, summer/winter schools offer Austrian students and early stage researchers the opportunity to establish contacts and exchanges with experts from research and practice as well as students from all over the world. Finally, courses held in English are important at bachelor's, master's and doctoral level. Around 30 % of the master's programmes are currently offered in English, with their proportion rising continuously. Doctoral programmes are primarily offered in English to attract talented international doctoral candidates.

This pull effect is further strengthened by internationally visible and attractive doctoral schools whose target audience is the most talented early stage researchers from all over the world.

#### NATIONAL COOPERATION

The academic world is characterised by competition and cooperation. Universities compete with each other for funding, academics, staff and the best students. Cooperation is essential in order to exploit complementary aspects in academic profiles, to develop, operate and use infrastructure efficiently and to create critical mass in international competition by forming national clusters.

There are excellent prerequisites for greater cooperation - in the environment of the University of Vienna there are several universities, universities of applied sciences, university colleges of teacher education and also prestigious non-university research institutions. Existing and new collaborations are particularly strengthened through cooperation within the framework of the five cluster of excellence projects of the Austrian Science Fund (FWF) approved in 2023, which will make a significant contribution to enhancing the national and international visibility and reputation of the University of Vienna. The Microbes Drive Planetary Health cluster of excellence led by the University of Vienna will be a highly visible international flagship project. In this project, we are working together with scientists from the Austrian Academy of Sciences (OeAW), the Research Center for Molecular Medicine of the Austrian Academy of Sciences (CeMM)/Medical University of Vienna, TU Wien, the Medical University of Graz, the University of Linz, the Institute of Science and Technology Austria (ISTA) and the Austrian Institute of Technology (AIT) to gain an understanding of the importance of microbiomes for planetary health. This project thus makes a significant contribution to networking and strengthening three of the University of Vienna's six strategic priorities: Global health; climate, environment, sustainability; and systems of life (see chapter 1: Research and Career Development of Early Stage Researchers).

The following specific activities, which also contribute significantly to further networking and strengthening of the University of Vienna's own activities within the framework of its six strategic priorities, are to be intensified.

#### COOPERATION WITH THE MEDICAL UNIVERSITY OF VIENNA. The

University of Vienna wants to further strengthen and intensify the already well-developed cooperation with the Medical University of Vienna. This is also done by establishing joint structures in order to use synergies and be internationally competitive. This networking also contributes in particular to strengthening our own activities in the strategic priorities of global health: physical, mental and social dimensions of health and of systems of life – foundations of life. To this end, the proven cooperation within the framework of the jointly operated Max Perutz Labs will be continued as a new organisational unit in accordance with section 20c of the Universities Act. These will continue to carry out internationally visible basic research in the field of molecular biology and, in this regard, will also enhance the connection to clinically relevant subjects.

The joint use of state-of-the-art equipment infrastructure plays a special role here. This will be implemented as part of the Vienna Life Science Instruments (VLSI) initiative and through the establishment of joint core facilities. Cooperation at the Vienna Biocenter (VBC) location will be strengthened through the continuation of the successfully established joint doctoral school of the two universities in collaboration with the Institute of Molecular Biotechnology (IMBA), the Institute of Molecular Pathology (IMP) and the Gregor-Mendel Institute of Molecular Plant Biology (GMI). Teachers are also active together here in master's programmes.

Further institutionalised cooperation with the Medical University of Vienna includes joint professorships, joint research projects, joint innovation labs (see chapter 4: Exchange of Knowledge), joint curricula and, in particular, the joint doctoral programme Molecular Biosciences in the field of molecular biology, which is also the basis of the above-mentioned doctoral school at the VBC site (see chapter 1: Research and Career Development of Early Stage Researchers). One joint professorship is located at the interface between medicine and nutritional sciences (Public Health Nutrition) (see chapter 10: Key Research Areas of the Faculties and Subject Dedication of Professorships).

The inter-university cluster projects, which promote innovative, translational projects (see chapter 1: Research and Career Development of Early Stage Researchers), are another essential scientific bridge to the Medical University of Vienna. Based on existing cooperation projects, the following thematically oriented cooperation projects with the Medical University of Vienna will also be continued and expanded in the future:

- An important field of cooperation with the Medical University of Vienna is microbiome research (see chapter 1: Research and Career Development of Early Stage Researchers). An initial starting point for further intensified cooperation in the field of microbiome research is the Joint Microbiome Facility, which was established in 2019 between the University of Vienna and the Medical University of Vienna. The CeMM and the Medical University of Vienna are also involved in the Microbes Drive Planetary Health cluster of excellence led by the University of Vienna (as are scientists from the Austrian Academy of Sciences, TU Wien, the Medical University of Graz and the University of Linz).
- In the postgenomic era, an understanding of the combined effect of different classes of molecules, which can be accessed by experiments in the fields of proteomics, lipidomics and metabolomics, constitutes a major basis for further developments of diagnostic and therapeutic possibilities. Patient-related data can be systematically collected through the joint infrastructure set up by both universities specifically for that purpose – the Joint Metabolome Facility –, which has been operated since 2019.
- It is planned to deepen cooperation in the field of pharmacy, especially in the area of pharmacology, with the Medical University of Vienna. It would be possible to establish additional joint doctoral programmes in the field of life sciences (see chapter 1: Research and Career Development of Early Stage Researchers and chapter 2: Studying and Teaching).
- The existing cooperation in the field of cancer research and cancer therapy will be continued. The two universities focus on translational research and the development of active agents as well as on toxicology and have founded the Joint Applied Medicinal Radiochemistry Facility to strengthen cooperation in this area.

- The cooperation within the Department for Ethics and Law in Medicine will be continued. Through the Department for Ethics and Law in Medicine, medical ethics, nursing ethics and medical law are represented in an interdisciplinary and integrative manner between the two universities in research, teaching and consulting. The Department also works with non-university institutions and organisations such as the Patient Safety Platform. Joint activities in the field of entrepreneurship and start-ups will be continued and intensified, including as part of the Biomedical Innovation Lab set up in 2023 together with xista, INiTS and the CeMM. This lab offers technical and entrepreneurial training for the founding of new companies that provide products and services for the pharmaceutical, biotech or medical device industries.
- Increased cooperation is also taking place as part of the jointly established master's programme in Molecular Precision Medicine. This is dedicated to the origin of diseases and their treatment at a molecular and mechanistic level.
- The Medical University of Vienna will contribute teaching in the field of neuroscience in the newly established master's programme in Neuroscience at the University of Vienna and cooperation will continue in the field of nursing sciences. The starting points are the Department of Nursing Science at the University of Vienna and the new endowed professorship for nursing science at the Medical University of Vienna together with the association Pfleger\*in mit Herz.
- The University of Vienna intends to continue working with the Medical University on postgraduate continuing education and training in the master's programme in Public Health and in the training in psychotherapy.

**COOPERATION WITH TU WIEN.** There exist many successful and longstanding cooperation projects with TU Wien and there is regular consultation with this institution especially in the fields of physics, chemistry, mathematics and computer science. These cooperation projects contribute in particular to strengthening the strategic priority of materials and the quantum level. There are plans to intensify cooperation in the field of artificial intelligence and strengthen the areas digital and data-driven transformations of science and society and systems of life.

The following additional special activities that go beyond the normal scope of cooperation should be mentioned here:

- The Erwin Schrödinger Center for Quantum Science & Technology (ESQ) strengthens quantum physics in Austria as a research location. The ESQ is a joint initiative with TU Wien, the University of Innsbruck and the Austrian Academy of Sciences (OeAW).
- The Vienna Center for Quantum Science and Technology (VCQ), operated jointly with TU Wien and the OeAW, strengthens quantum physics in Vienna.
- Participation in the cluster of excellence projects Materials for Energy Conversion & Storage (MECS) at TU Wien (which also involves collaboration with ISTA and the University of Innsbruck), Microbiomes Drive Planetary Health (lead: University of Vienna) and Quantum Science Austria (lead: University of Innsbruck).
- The field of high-performance computing (Vienna Scientific Cluster, VSC) will continue to have special relevance as a starting point for cooperation projects. Cooperation in the field of high-performance computing (HPC) takes place, among other things, through the joint sponsorship of the HPC Austria association, as co-owner of Advanced Computing Austria ACA GmbH (formerly HPC Competence Center Austria) and through joint membership in the European HPC initiative PRACE (see chapter 7: Infrastructure).
- Cooperation in mathematics takes place, among other things, via the joint doctoral school Vienna Doctoral School for Mathematics and via joint participation in the Vienna Center for Partial Differential Equations, which represents an important catalyst for joint third-party funding activities (e.g. FWF-SFB).

- Cooperation in the field of information technology is also strengthened through joint participation in the COMET centre SBA Research, the first Austrian research centre for information security, and through participation in the Vienna Cybersecurity and Privacy Research Cluster (ViSP).
- Cooperation also takes place within the framework of joint membership in the ACOnet association, the provider organisation of the high-performance network of the same name for science and research and research-related institutions in Austria.
- The two universities are involved in the European Open Science Cloud (EOSC) and the European Grid Infrastructure (EGI) as well as in joint projects as part of funding of the Austrian Federal Ministry of Education, Science and Research (BMBWF) for (digital) research infrastructures, including in the area of research data management.
- The University of Vienna, TU Wien and the Vienna Business Agency participate in the INiTS business incubator with the aim of promoting spin-offs and start-ups (see chapter 4: Impact of the University on Society – Exchange of Knowledge).
- The two universities run the joint master's programme in Chemistry and Materials Technology, which provides indepth knowledge at the interface between chemistry and materials science.
- The University of Vienna, TU Wien and the University of Natural Resources and Life Sciences, Vienna are cooperating in the English-language master's programme in Green Chemistry.
- The two universities cooperate in the implementation of admission procedures for bachelor's programmes, e.g. in computer science.

#### COOPERATION SCHEMES WITH THE AUSTRIAN ACADEMY OF SCI-

**ENCES (OEAW).** Cooperation schemes with the OeAW arise automatically, so to speak. This is because many professors of the University of Vienna are also corresponding or real members of the OeAW and can therefore co-shape the development of the OeAW with their vote. Many professors and associate professors of the University of Vienna are also active as heads of research institutes or research groups at the OeAW and also cooperation schemes are implemented with scholars from the OeAW within the framework of several clusters of excellence. Cooperation with the OeAW therefore contributes significantly to the strategic priorities of the University of Vienna.

The following special cooperation projects which go beyond the usual extent need to be mentioned:

- Cooperation in the field of quantum physics is strengthened and institutionalised via the Erwin Schrödinger Center for Quantum Science and Technology jointly with the OeAW, TU Wien and the University of Innsbruck. The close personnel and infrastructure ties between the Faculty of Physics and the Institute for Quantum Optics and Quantum Information (IQOQI Vienna) open up new perspectives. Within the framework of the Quantum Science Austria cluster of excellence (led by the University of Innsbruck), cooperation takes place with the OeAW, but also with ISTA and the University of Linz. This leads to extensive networks and the strategic priority of materials & the quantum level is greatly strengthened.
- In the field of digital humanities, the cooperation with the OeAW will be continued as part of the Austrian Center for Digital Humanities (ACDH), which will help to strengthen the strategic priorities of culture, education, democracy and digital and data-driven transformations of science and society.
- Cooperation projects in the field of archaeology, including with the Austrian Archaeological Institute, as well as in the area of languages and cultures of the Middle East and Asia have been intensified. A joint memorandum of understanding between the University of Vienna and the OeAW lists as cornerstones the joint application for third party-funded projects, e.g. an FWF special research programme, cooperation in the area of teaching (e.g. within the framework of a possible joint doctoral programme), the cooperative use of infrastructure and the joint recruitment of outstanding researchers. As part of the EurAsian Transformations cluster of excellence led by the OeAW, the

cultural heritage of Eurasia is being jointly researched. This also makes a significant contribution to strengthening the strategic priority of culture, education, democracy. As part of the cluster of excellence project, joint research is also being carried out with academics from the University of Innsbruck and the CEU.

 Ultimately it is planned to establish cooperation projects with the research associations of the OeAW (IMBA, CeMM, GMI) and with the Research Institute of Molecular Pathology (IMP) in the form of a joint doctoral school of the University of Vienna and the Medical University of Vienna at the Vienna Biocenter location, building on the joint doctoral curriculum in Molecular Biosciences of the two universities, and also the career development of scientists who are particularly successful or will be recruited jointly. Together with the other cooperative activities at the Dr.-Bohr-Gasse and Djerassiplatz sites, this will contribute to strengthening the strategic priorities of systems of life, global health and climate, environment, sustainability.

#### COOPERATION SCHEMES WITH UNIVERSITY COLLEGES OF TEA-

**CHER EDUCATION.** In the North-East Schools' Group, a cooperation project has been ongoing since 2016 with the University College of Teacher Education of Christian Churches Vienna/Krems, the University College of Teacher Education in Lower Austria, the University College of Teacher Education in Vienna and the University College for Agrarian and Environmental Pedagogy. It focuses on the jointly established teacher education programme at secondary level (general education) (see chapter 2: Studying and Teaching).

All the students of the bachelor's and master's programme in teacher education are students at all of the involved institutions. The central themes of this cooperation are both consultation regarding teaching and quality assurance in the joint programme and also the (further) development of this cooperation in the continuing education and training of teachers.

COOPERATION SCHEMES WITH THE CENTRAL EUROPEAN UNI-VERSITY, THE UNIVERSITY OF VETERINARY MEDICINE, VIENNA, THE UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES, VIENNA, LUDWIG BOLTZMANN GESELLSCHAFT, UNIVERSITIES OF APPLIED SCIENCES AND OTHER INSTITUTIONS. A large number of cooperation schemes have been set up with other national research establishments, with the following being continued and, where appropriate, expanded.

- *Central European University (CEU):* Academics from the University of Vienna are involved in the Knowledge in Crisis cluster of excellence, which is led by the CEU and also further links and strengthens the strategic priority of culture, education, democracy. Academics from the Universities of Graz and Salzburg are also involved in the cluster.
- Cooperation with the *Institute of Science and Technology Austria (IST Austria)* takes place within the framework of the three cluster of excellence projects Quantum Science Austria (lead: University of Innsbruck; strategic priority of quantum systems and materials for the future) Microbiomes Drive Planetary Health (lead: University of Vienna; strategic priorities of global health and systems of life) and Materials for Energy Conversion and Storage (lead: TU Wien; strategic priority of quantum systems and materials for the future) and as part of the joint innovation lab XBIO with xista.

- WasserCluster Lunz: The WasserCluster Lunz is a joint company of the University of Natural Resources and Life Sciences, Vienna, Danube University Krems and the province of Lower Austria. The city of Vienna makes major contributions to safeguarding the efficiency of this institute, which specialises in limnology. The cluster's activities contribute to linking and strengthening the strategic priorities of climate, environment, sustainability and of systems of life.
- *Climate Change Center Austria:* Together with many Austrian universities and non-university research establishments, the University of Vienna is a member of the Climate Change Center Austria (CCCA) and takes part in the Austrian Polar Research Institute (APRI) jointly with the University of Innsbruck, the University of Graz and GeoSphere Austria. This contributes to linking and strengthening the strategic priorities of climate, environment, sustainability and systems of life.
- Messerli Centre for Human-Animal Interaction: The University currently runs the Messerli Centre for Human-Animal Interaction jointly with the University of Veterinary Medicine, Vienna and with financial support from the Messerli Foundation, thus strengthening and linking the strategic priority of systems of life.
- *Together with the IIASA and the OeAW,* the University will continue to run the *Wittgenstein Centre* in the field of demography (strategic priorities of culture, education, democracy and of climate, environment, sustainability).

- In the *Elfriede Jelinek inter-university research network*, the University of Vienna cooperates with the Music and Arts University of the City of Vienna (strategic priority of culture, education, democracy).
- The University cooperates with *Ludwig Boltzmann Gesellschaft* in the field of fundamental and human rights (strategic priorities of culture, education, democracy and of global health).
- AUSSDA: The Austrian Social Science Data Archive provides a newly created data infrastructure based at the University of Vienna. Its target group is the social science community in Austria. It is being further developed primarily with the Universities of Graz, Linz and Innsbruck and is linked to all other Austrian universities as well as to funding institutions and non-university research institutions via an advisory board. In addition, AUSSDA is the Austrian representative in CESSDA ERIC (Consortium of European Social Science Data Archives). The activities of AUSSDA and the further expansion of digital data infrastructures for Austrian society make a significant contribution to strengthening and linking the strategic priority of culture, education, democracy.
- Cooperation with universities of applied sciences at the location of Vienna will be continued, with particular attention being paid to the permeability towards master's or doctoral programmes at the University, provided that this makes sense in terms of subject matter. Using exemplary master's programmes, transitions are communicated to prospective students in the Master Access Guide and, if necessary, transparently communicated via examinations to be taken at a later point, regardless of the individual case.

- A *joint master's curriculum in Multilingual Technologies* has been established with FH Campus Wien. This curriculum is located at the interface of translation studies and new digital technologies and thus contributes to networking and strengthening the strategic priority of digital and datadriven transformations of science and society.
- Further cooperation with the *Institute for Advanced Studies* (*IHS*). The cooperation should also enable joint professorships/tenure track (TT) positions to be filled in the fields of business, economics and social sciences in coordination with the faculties concerned, while maintaining the content-related and qualitative requirements of both institutions.
- Events which provide good publicity are held jointly with the *Natural History Museum Vienna* (e.g. the lecture series Umwelt im Gespräch or 'Talks about the environment'). The Natural History Museum Vienna will become an associate member of the Circle U. alliance from the autumn of 2023, which will lead to an intensification of cooperation.





# 4. Impact of the University on Society – Exchange of Knowledge

The impact of a university describes the effects of university services in and for society. It is not only about academic achievements, but also about social, ecological, economic, technological and cultural aspects. The University of Vienna assumes its responsibility to contribute the knowledge it produces to societal discourse and the innovation system and to help solve societal challenges. The contributions of the University not only extend the limits of human knowledge and are highly relevant for understanding social and digital transformations and their impacts. They also help to develop answers and solutions to pressing questions and problems.

One particular strength of the University of Vienna lies in the diversity of the academic disciplines represented at it and its internationally oriented and excellently networked research and teaching. In addition to the wide range of disciplines, excellence in basic research is a key prerequisite for the impact of the University of Vienna at local and global level, providing answers to fundamental questions and making ground-breaking innovations possible in the first place. This was revealed particularly impressively in 2022 in the Nature Index Innovation, which measures how often academic papers are cited in patent applications and thus the influence that basic research has on the global innovation system.

In this global comparison of the top 500 research institutions, the University of Vienna is in 99th position.

The guiding principle of all knowledge exchange activities is to generate social impact and contribute to solving the grand societal challenges of our time. These are defined, for example, in the EU Framework Programmes (especially 'Societal Challenges' or in the future 'Missions') or the UN Sustainable Development Goals (SDGs) (https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/missions-horizon-europe\_en; https://sustainabledevelopment.un.org).

At the University of Vienna, this will be focused on six strategic priorities in the future (see chapter 1: Research and Career Development of Early Stage Researchers). By networking research, teaching and knowledge exchange, it is planned to gain findings in the University's six priority areas and transfer them to society. Based on the six strategic priorities and their cross-departmental structures, the University of Vienna aims to establish regular exchange and service offers with business and society which are also intended to develop, integrate and work on issues and topics focused on the priority areas. From the project application phase onwards, academics will be advised on the possibilities for transferring their research results and on the possibilities and university structures for generating impact (e.g. research networks, innovation labs or social media channels). This advice is based on the identification of areas characterised by innovative approaches to knowledge transfer, high potential for exploitation or exploitation successes, for example through media resonance analyses and the use of scientometric methods. Building on existing structures, the University will focus its knowledge exchange activities on four fields of action.

# CREATING AWARENESS OF KNOWLEDGE EXCHANGE

In the coming years, awareness of knowledge exchange is to be increased even further. This applies internally to students and (early stage) researchers and externally to the economy and society. By continuing and expanding measures such as the Impact Award and the Entrepreneurship Night, successful projects are to be made visible and the University's extensive commitment to knowledge exchange is to be continued. The range of university activities goes from social, ecological and educational initiatives on to successful collaborations with industry and the establishment of companies and non-profit organisations. At the same time, explicitly outwardfacing awareness measures, which are also reinforced through social media activities, are intended to increase the visibility of the University of Vienna as an innovator and potential project partner for stakeholders from business and society.

## SHAPING KNOWLEDGE EXCHANGE TOGETHER

The main core elements of knowledge exchange are cooperation and ongoing exchange with partners from business and society. The University of Vienna wants to be perceived as an open, reliable partner that makes a significant contribution towards innovative solutions to current problems with its outstanding academic expertise. The University is looking for long-term cooperation and innovation partnerships in this regard. In many cases, the added value of such cooperation schemes with stakeholders from business and society goes beyond the specific research topic and can also be a starting point for taking up topics from society and jointly developing innovative research-based solutions. The University has a strong interest in actively participating in industrial partnerships of high academic relevance. It is open to exploring cooperation schemes at both national and international level.

On the one hand, new sources of funding can be tapped through direct cooperation projects such as joint third party-funded projects at national (e.g. Christian Doppler Research Association (CDG), Austrian Research Promotion Agency (FFG), Ludwig Boltzmann Gesellschaft (LBG)) and at international level (e.g. Horizon Europe, international foundations). On the other hand, participation in such projects opens up new career opportunities particularly for early stage researchers, but also for students.

To initiate new partnerships, the University of Vienna organises topic-oriented, interdisciplinary networks of different academic disciplines within and outside the University, in particular as part of the strategic priorities. Another important aspect beyond the direct exchange of knowledge with research partners is to make research results even more accessible. To this end, the University of Vienna advocates open research and development activities and projects (open science/open innovation), open (research) data and the accessibility of research results (open access, patents) where possible and appropriate – at the European level, for instance, within the framework of the European Open Science Cloud (EOSC) (see chapter 6: Digitalisation).

### STRENGTHENING TECHNOLOGY DEVELOPMENT, EXPLOITATION AND TRANSFER

Technology transfer as a major element of knowledge exchange starts by identifying inventions that, ideally, can be used by the economy and society in the form of products, services, business models and organisational models.

The prerequisite is the academics' awareness of the transfer potential of their research results. Experts from the technology transfer team help the academics to identify those developments that may be relevant when using research results to solve problems. Together with the academics, an individual exploitation strategy is developed, on the basis of which further measures can be taken with the aim of commercial exploitation, for example to protect intellectual property (IP, e.g. patent application).

In addition to identifying exploitable technology and corresponding training courses, the University of Vienna also provides support in the search for appropriate funding opportunities, e.g. for the further development of technologies and prototypes, in assessing the exploitation potential, e.g. through market research, and in negotiations with external partners on IP-related issues.

The framework for the technology transfer activities of the University of Vienna is provided by the guidelines, currently under development, for the commercial exploitation of research results (IP policy).

## ENTREPRENEURSHIP – PROMOTING ENTREPRENEURIAL ACTIVITY

Central topics are the promotion of entrepreneurial activity and the exploitation of intellectual property – created at the University by its researchers – through spin-offs from companies and non-profit organisations. One goal is to generate more spin-offs from university operations through awareness-raising measures, targeted training and coaching measures for specific start-up projects that are directly related to the University's intellectual property. As a transparent set of rules, the spin-off policy of the University of Vienna helps to clearly structure the spin-off process and to offer support for founders within the framework of state aid and competition law.

The University of Vienna launched the innovation labs (ilabs) with the aim of bringing together innovators from all disciplines to develop new spin-offs. In this interdisciplinary programme, participants interested in founding a company work in teams to develop their entrepreneurial ideas or solutions for societal challenges. After a training phase with experts from academia and business, the teams with the most promising ideas are supported by the University on their way to founding a spin-off. Innovative teaching formats are developed as part of the ilabs. The aim is to use the ilabs to create the basis for early-stage start-ups to go directly into founding, to secure further funding (FFG, Austrian Wirtschaftsservice Gesellschaft (aws), European Institute of Innovation and Technology (EIT), etc.) or to participate in incubation programmes. ilabs will be further expanded along the strategic priorities. In preparation for a start-up, (potential) founders with a connection to the University of Vienna can maintain their connection to the University as 'entrepreneurship fellows' and gain access to the necessary infrastructure.

In order to increase their chances of success, promising start-up projects can receive support from the University of Vienna in the initial phase as part of a pre-seed programme. Depending on the individual case, this support can consist of, for example, further training, mentoring by internal and external experts, market analyses, legal and IP advice, or networking with relevant stakeholders or funding programmes for the development of prototypes.

This pre-seed programme is offered, for example, to participants of the ilabs, winners of the FFG spin-off grant or the AWS prototype funding, beneficiaries of the European Research Council (ERC) Proof of Concept grants and of the European Innovation Council (EIC) as well as early-stage university spin-offs.

As part of its entrepreneurship activities, the University of Vienna also continues to cooperate with various partner institutions and incubators, particularly INiTS, to support and advise founders in the best possible way (see chapter 3: International and National Cooperation). In this way, it also makes a direct contribution to Austria's innovative strength and competitiveness as a business location.

#### SCIENCE COMMUNICATION

With science communication, the University helps provide orientation for dealing with key societal challenges. The goal is to communicate the importance of scholarship and research even better and thus further strengthen both the trust in academic findings and the reputation of the University as an open, reliable partner in the public sphere. All communication measures are contributions to helping the University achieve its strategic goals – from active studying and making excellent and socially relevant research achievements visible on to participatory research approaches and addressing knowledge exchange itself. Science communication begins as early as during studies, for example through students' interactions with society, and is a central task of all scholars, graduates and alumni/alumnae. The teaching profession plays a special role here due to its central role as a provider of knowledge in schools.

Many different formats of science communication provide support in the dialogue between the members of the University and external partners. In times of growing scepticism towards science, science communication aims to arouse interest in science ('public awareness of science'), explain science and make it understandable ('public understanding of science') and thus contribute to an improved basic understanding of science ('scientific literacy').

Open and participatory approaches create new opportunities for an intensive and enriching exchange between researchers and society ('citizen science', 'public engagement with science'). The establishment of networks between academics as well as social and economic actors strengthens the understanding of research methods and processes and trust in quality-assured research results. It can also arouse curiosity about university education programmes and invite people to become actively involved in the academic world. The offers provided by the University are geared towards specific target groups, such as pupils or young adults who are facing the decision for a degree programme, others have a wide focus on all age groups. The format termed Children's University of Vienna, for example, is well established and well known.

The formats of science communication are intended to provide an overall picture of the range of subjects represented at the University of Vienna. In addition to university-wide formats, the faculties, centres and cross-departmental structures engage in a wide range of science communication activities. Ideas, initiatives, activities, findings and developments of academics are the basis for communication, for which suitable target group-oriented channels are used. The University provides channels such as social media, digital and print magazines, media work and media cooperation projects as well as formats such as the 'Semesterfrage' (semester question) or the 'Lange Nacht der Forschung' (long night of research), and is constantly developing these further.

The University of Vienna is becoming increasingly digital. For science communication to be successful it needs virtual and physical places where regular and institutionalised contacts between the academic world and the public can be established. Science communication itself must remain innovative and repeatedly develop new attractive formats and use new communication channels.

Science communication is also an essential part of reputation management. This aims to improve the visibility and reputation of the University of Vienna and its academics. The activities are coordinated and agreed with the university management as part of a reputation management system. By enhancing its reputation, the University expects to find new academic cooperation partners (strengthening international networks), recruit top international academics and experts (employer branding) and attract the best students. The University's reputation also contributes to its success in university rankings (such as the THE and QS rankings).



# 5. Employees

The University of Vienna depends on the talents, qualifications and commitment of all those involved in the institution, the teachers and researchers, and also the general university staff and students equally. Every individual employee bears joint responsibility in their own distinct sphere of work for the functioning and further development of the institution. Independent of their respective position and function in the organisation, this constructive and successful cooperation builds on the mutual appreciation of the staff members of the University of Vienna, with the Code of Conduct forming a clear framework. The University of Vienna has high expectations for its staff and supports them appropriately. The managers at each level have the special task of formulating expectations for the staff members' work performance in dialogue with them, fairly assessing this performance and giving them appreciative, open and motivating feedback at continual intervals with the objective of personal and institutional further development. Managers at all levels support staff members in their competence development in a responsible and reflective manner. The joint achievement of goals is a guiding principle for this. The University of Vienna invests in the development of management competence and management culture, thus strengthening the

ment competence and management culture, thus strengthening the institution, its performance and attractiveness as an employer.



Diagram 16: The University of Vienna as an employer.

# THE UNIVERSITY OF VIENNA AS AN EMPLOYER

Attracting the best-qualified and motivated academic and non-academic staff is crucial for the University's successful further development in international competition with other universities and research institutions. In addition to the commitment and competence of its employees, their identification with the University as their employer constitutes a decisive factor.

In times of demographic change, digitalisation and ever-increasing mobility of (potential) personnel, it is indispensable that the employer actively marks out its own position. Qualities that are intrinsic to the profile of a university increasingly play a central role here. The University of Vienna is a place of lifelong learning, which is reflected in a strategically oriented human resources development that focuses on the advancement and expansion of relevant and future-oriented competences in a target group-specific manner. In its capacity as an employer, the University of Vienna also offers identification potential through its organisational purpose by providing individual meaning and creating societal added value as a research and educational institution. An international working environment characterised by a high degree of cultural diversity combined with individual creative leeway offers the opportunity to develop own strengths and competences. Working for an academic organisation requires flexibility and is not always tied to rigid working hours and the university premises. This is taken into account, among other things, through a performanceenhancing approach to the topic of working from home and support in the organisation of everyday working life. This also makes it easier to take individual life situations into account while respecting institutional requirements.

The University of Vienna employs more than 10,500 people – or 6,200 if calculated as full-time equivalents. The University of Vienna is therefore one of the biggest employers in the city and makes an essential contribution to the creation of value in the location of Vienna, not least through its employees.
### HUMAN RESOURCES DEVELOPMENT

The University of Vienna is an expert organisation whose goal is the enhancement, dissemination and communication of knowledge. Accordingly, the selection of employees and their permanent further qualification play a decisive role. This concerns subject-specific and equally interdisciplinary competences, which are of decisive importance for providing excellent services in the respective area of responsibility and for further developing the organisation overall.

The services offered by Human Resources Development at the University are oriented towards the strategic goals of the University and the competences to be derived from them which characterise the various target groups among the academic and non-academic university staff. The employees are assisted from the moment they join the University, on to support in fulfilling their role, to the development of their career.

New employees are addressed, selected and integrated in a proactive and target group-specific manner. This process is supported by the presence of the University of Vienna in media forums of relevance for the respective labour market (including social media), an attractive and user-friendly job portal and a professional, applicant-oriented recruitment process. Especially in academic recruitment including postdoctoral researchers, the proactive search for candidates at an international level is becoming increasingly important. A proactive search for candidates is also an important instrument for addressing female academics in a targeted way in subjects with a low share of women and counteracting a possible gender bias in the recruitment process.

With its activities, Human Resources Development supports the advancement and expansion of success-relevant competences for a positive and proactive attitude towards work in an increasingly digitalised academic and professional world. Human resources development at the University of Vienna takes place in an environment that is diverse and, above all, international. The use of digital teaching and learning methods as well as a contribution to further developing digitalisation overall are central to the services provided by Human Resources Development. These target all employee groups accordingly. Ultimately, the Human Resources Development of a university also operates in an international network and deliberately seeks benchmarks and exchange with the human resources departments of other relevant universities. English-language seminars, learning communication and materials, a focus on intercultural understanding and intercultural exchange, and the expansion of English language proficiency for everyday work, also among nonacademic staff, are typical practical expressions of this approach.

The success of all HR development activities is the result of the teamwork among many actors: university management, managers, other establishments working on related topics (e.g. Career Development, Center for Teaching and Learning, University Library, Vienna University Computer Center, Gender Equality and Diversity) and employees who bear responsibility for their own development. The clear presentation of the offer for the individual target groups, access for everyone and, if possible, at all times, and continuous evaluation are additional building blocks for the long-term success and further development of HR development at the University of Vienna.

## DIVERSITY, EQUAL OPPORTUNITIES AND GENDER EQUALITY, RECONCILABILITY

Students and employees of the University of Vienna form a community of people who face different situations in life and are characterised by varying experiences, world views and competences. The University of Vienna sees this diversity as an asset and understands diversity as a basic experience of human relations which affects all people active at the University. This understanding of diversity is integrated into the overall strategic perspective of the University. This makes it possible to actively promote individual diversity dimensions as well as to perceive cross-dimensional connections.

An appreciative treatment of diversity is one of the self-evident tasks of the university members, who treat each other with mutual respect and avoid any behaviour that contradicts this principle. Programmes and workshop series for junior and senior members of the non-academic and academic staff broaden the individual action competences of university members and raise awareness of inclusion and exclusion mechanisms. Through recommendations for action and guidelines, such as the recommendations related to incidents of discrimination in teaching or the guideline on genderinclusive language use, the University promotes the work on and prevention of discrimination.

One focus of activities on equal opportunities at the University of Vienna is gender equality. This is not merely a statutory obligation but also a key component of the profile of the University's culture. Gender equality is integrated into all university activities and enshrined as a universal guiding principle aiming to achieve equality between women and men as well as a balanced ratio between women and men at all levels. In addition, to the extent possible, the University respects and supports gender diversity, particularly transgender, intersex and non-binary individuals. A central decision-making basis for the development of career advancement approaches is the monitoring of gender ratios. Overcoming the leaky pipeline – dwindling female percentages at higher career levels – remains the general objective related to the promotion of women in the academic sphere. To this end, career support programmes for female early stage researchers are regularly carried out and are continuously developed on the basis of evaluations (see chapter 1: Research and Career Development of Early Stage Researchers). In addition, measures are being taken to promote the mobility and internationality of female academics or to make it easier for them to return to the world of academia after an interruption due to care responsibilities. Of great importance is the (self-)critical examination of the effects of gender bias by all employees and especially by managers, which must be counteracted actively in all phases of an academic career and in all fields of activity.

As an employer and a place of university-based teaching and research, the University of Vienna attaches great importance to promoting the reconcilability of work, studies and other spheres of life. Especially care-related activities take up different amounts of time and attention in different phases of life and still prove to be an obstacle in the professional career of women in particular. The University supports a fairer distribution of care obligations between the sexes by taking measures aiming at reconcilability. In its work culture and organisation, the University of Vienna takes into account care work-related requirements (e.g. flexitime agreements, meeting culture, temporary reductions of working time to a level below the legally stipulated minimum).

# THE STAFF PROFILE OF THE UNIVERSITY OF VIENNA

**ACADEMIC UNIVERSITY STAFF.** The quality of research and teaching at the University of Vienna is based on the excellence and commitment of its academics. Recruitment of the sharpest minds is carried out at an international level and is extremely competitive. Elements of quality assurance as well as measures of equal opportunities, advancement of women and non-discrimination are of major importance especially in this respect. Active search for staff, particularly in the area of professorships and tenure track professorships, plays just as important a role as international peer reviews in research and the evaluation of teaching and teaching concepts (see chapter 9: Quality Assurance). The total number of academics has increased significantly at all career levels, financed both by the global budget and third party-funded projects. In addition to the professorships on the basis of section 98 of the Universities Act, the University of Vienna has greatly expanded tenure track professorships in particular and plans to continue to do so. The aim is to successfully recruit internationally through a functional overall architecture, a balanced ratio of professorships and tenure track professorships based on section 98 of the Universities Act and to offer a convincing career model. About every three years, associated professors have the opportunity to be appointed to the position of university professor, subject to a competitive procedure based on section 99, para. 4 of the Universities Act. The next call for applications is scheduled for spring 2024. Professors and tenure track professors shape research and teaching at the University of Vienna, guarantee excellence and international visibility and ensure the acquisition of competitive third-party funding. A significant proportion of research work is additionally carried out by predoctoral and postdoctoral researchers as part of qualification posts and third party-funded projects. Early stage researchers qualify as predoctoral and postdoctoral researchers for careers within and outside the University. In recent years, the University of Vienna has paid particular attention to doctoral programmes by establishing doctoral schools throughout the University. In the coming years, the focus will be on support measures for postdoctoral researchers to help them plan and develop their careers. Successful early stage researchers act as ambassadors for the University of Vienna, expand networks and contribute to its international reputation. Scholars at all career levels collaborate in the responsible fulfilment of university autonomy by exercising functions at the University.

#### PROFESSORS

Due to their outstanding research achievements, professors contribute to the international visibility of the University of Vienna as well as to knowledge transfer to society, generate enthusiasm for their subject, introduce students to research work, and thus make an essential contribution to the supervision/education of students at all stages of their studies. Due to the acquisition of corresponding third-party funds, the professors contribute to widening the funding basis of the University of Vienna, especially to create positions for early stage researchers. Most professorships at the University of Vienna are usually filled on a permanent basis following a competitive appointment procedure with an active search for candidates, or professors are appointed based on section 99a of the Universities Act. The University of Vienna offers professors a work environment which is equipped in line with international standards.

With the creation and filling of professorships based on section 99, para. 4 of the Universities Act for associated professors, the University of Vienna pursues the objective of safeguarding the lasting attractiveness of tenure track positions at the University of Vienna. The University of Vienna considers those professorships based on section 98, section 99, para. 4 and section 99a of the Universities Act as having the same tasks and being equivalent. This should be taken into account, subject to availability of funds, with an appropriate provision of resources. Both the scientific advisory board (SAB) of the University of Vienna and the evaluation of the professorships based on section 99, para. 4 as commissioned by the Federal Ministry of Science, Education and Research have underlined the importance of adequate resources.

#### TENURE TRACK

Tenure track professorships are subject to similar qualification requirements as professorships, but entry takes place already at an earlier point in time of the academic career. The qualification procedure is structured as follows: Upon taking up a position, the University of Vienna concludes a qualification agreement with the holder of the position, in which objectives are formulated that ensure the development of the candidate as a scholar and academic teacher with a high degree of independence. These objectives mainly include top peer-reviewed publications, successful teaching at all educational levels, supervision of early stage researchers (master's and doctorate/PhD) and the acquisition of competitive third-party funds to set up their own working group. Fulfilment of the qualification agreement, as a rule after four years, leads to a permanent contract as an associated professor. Associated professors fulfil similar tasks as university professors, especially also in the supervision of academic theses independent of whether a habilitation is granted or not. Approximately every three years, a number of positions based on section 99, para. 4 are competitively advertised, enabling associated professors to be appointed as university professors (see above for the appointment procedure). In order to provide tenure track professors and university professors appointed in accordance with section 99, para. 4 with resources appropriate to their career level and the particular situation in their subject, the University of Vienna requires additional financial resources.

The University of Vienna offers a simplified fast-track selection process for a tenure track position for scholars with an ERC Starting Grant, ERC Consolidator Grant, the FWF START Prize or a WWTF Vienna Research Group (VRG) grant on certain conditions.

#### ASSOCIATE PROFESSORS

Associate professors have developed from habilitated university assistants and, since their appointment as associate university professors, have represented their academic discipline autonomously. Associate professors are key providers of research, teaching, knowledge transfer and university (self-) administration at the University of Vienna. With their research achievements, they contribute to the visibility of the University, introduce students at all stages of study to research and make a key contribution to the supervision and training of students, the qualification of early stage researchers and the acquisition of third-party funds.

### POSTDOCTORAL RESEARCHERS

Postdoctoral researchers (see also chapter 1: Research and Career Development of Early Stage Researchers) enhance their own academic profile in research and teaching and introduce it at the University of Vienna, also by supervising students, for a limited period. In this way, postdoctoral researchers qualify themselves for an academically oriented non-university activity or for the next academic career level, whether in university-based research and teaching or in the economy or with other non-university employers. Postdoctoral positions are valid for a fixed term of three to six years and can be financed either by third-party funds or the global budget, in each case depending on the requirements of the subject, taking the international context into account. In addition to university-based teaching and research activities, postdoctoral researchers also contribute to the acquisition of third-party funds. The University of Vienna assists postdoctoral researchers in career planning and development through subject-specific support programmes and will expand these programmes systematically in the coming years.

### PREDOCTORAL CANDIDATES

The objective of a predoctoral phase at the University of Vienna is the PhD/doctoral degree, which qualifies internationally for a future academic career or in another academically based form of employment in the economy or with other non-university employers (see also chapter 1: Research and Career Development of Early Stage Researchers). Predoctoral positions can be financed either by third-party funds or the global budget, in each case for at least three, usually four years. The University of Vienna expects holders of predoctoral positions to give the public presentation of their doctoral project at the faculty within the first year in any case and to conclude the doctoral thesis agreement and, as well as carrying out the activity for the third party-funded project and fulfilling the research and teaching tasks assigned to them, to actively work on completing their PhD programme/doctoral programme in the course of their employment duration. The University of Vienna supports the achievement of these objectives by stipulating - as well as work on the PhD/doctoral programme

and the doctoral project outside the employment relationship – 10 paid hours a week for making headway with the PhD/doctoral programme, especially the doctoral project, as part of the predoctoral employment relationship that is financed by the global budget. In the doctoral schools, doctoral candidates encounter an inspiring academic exchange, an active doctoral community and numerous opportunities to network with colleagues from Austria and abroad (see chapter 1: Research and Career Development of Early Stage Researchers). From 1 October 2024, the supervision of doctoral candidates will be established throughout the University of Vienna in all doctoral schools.

#### OTHER FORMS OF ACADEMIC ACTIVITY

The employment profile of senior scientists includes long-term academic use of large infrastructures (requiring continuity of staff), in the life and natural sciences these are laboratories and core facilities for instance, in the humanities and social sciences these are large collections/reference sources or the processing of digital corpora. With their own research output, senior scientists support other academics in the use of the resources. As a rule, senior scientists are initially employed for a limited period of time. Following a quality check, the relationships can be prolonged for an indefinite period.

Senior lecturers fulfil central tasks in teaching. They are employed especially where there is long-term need for additional teaching in the compulsory area of bachelor's programmes and they take part in regular task-specific continuing education and training programmes. As a rule, senior lecturers are initially employed for a limited period of time. The relationships can be prolonged for an indefinite period following a quality check. It is planned to expand the number of senior lecturers on the basis of needs assessments in the respective subjects.

*External lecturers* need to be employed in line with the required functions under consideration of the existing framework conditions. External lecturers are employed especially to introduce professional practice and to include individual content which is

not represented at the University and, if necessary, to safeguard the quality of degree programmes due to a lack of sufficient inhouse resources.

*Student assistants* support the University in the provision of services in research and/or teaching. They can also gather experience by collaborating in academic activities.

Due to earlier legal frameworks, the following groups are still employed at the University of Vienna: above all university professors employed as civil servants (with an activity profile analogous to those in a salaried employee relationship), assistant professors with permanent employment contracts as civil servants, academic civil servants, and academic employees who were previously in a contractual relationship with the federation as well as federal and contractual teachers, all of whom fulfil specific tasks in research and/or teaching and contribute to the services provided by the University of Vienna. **GENERAL UNIVERSITY STAFF: SERVICE ORIENTATION, PROFES-SIONAL WORK ORGANISATION.** The international competitiveness of a university is also based on the quality and performances of its non-academic staff, who support the central tasks in research and teaching and shape and essentially further develop service and support processes.

The pace of developments in the administrative and technical field is similarly rapid as in the academic area. It is the goal of the nonacademic university staff to provide the best possible support for academic activities. Professional research management requires an in-depth understanding of the international academic landscape in conjunction with the corresponding administrative and technical competences, building on know-how and expertise, foresight and an understanding of the system. The efficiency and performance of the non-academic university staff must measure itself against comparable academic institutions and also against comparable, successful economic enterprises which are active in the market. Competent employees with a high level of commitment have various career options within the University in competition with applicants from inside and outside the University. Motivation and employee satisfaction constitute a major element of an attractive and competitive university. Fairness, transparency and appreciative treatment by professional managers are just as important as diversity competence and gender knowledge.

The non-academic staff at the University of Vienna include a large number of different professions with very different areas of responsibility: staff and budget, IT and laboratories, gardening and animal care, events and public relations, and administration at faculties, service units and central support units. With their profound knowhow and expertise, foresight and understanding of the system, the general university staff facilitate academic activities and support their further development.

The diverse tasks require excellent qualifications and continuing professional development as well as a wide experience background, but also the willingness to consider requirements and demands from many different perspectives (central/decentralised, differing specifics of the disciplines), with the objective of developing efficient and effective solutions which are valid for an as large as possible area of the University of Vienna.

In order to ensure support for research and teaching activities at a high level, the members of the non-academic university staff steadily improve the quality of the services, business processes and structures. This is guaranteed by the commitment of the University of Vienna to ensuring the permanent modernisation and increasing digitalisation of the business processes and the services implemented with them as well as regular consultation on central and decentralised tasks. In the coming years, one focus in this regard will continue to be HR business processes, which are being digitalised and simplified on a workflow basis as part of a comprehensive SAP conversion project. The qualitative and quantitative further development of the decentralised support structures will be another focus.

The University of Vienna ensures the framework conditions for attracting and retaining highly qualified employees. Competent employees with a high level of commitment have various career options within the University. Motivation and employee satisfaction constitute a major element of an attractive and competitive university. The University of Vienna creates the conditions for constructive cooperation in all functional areas/at all levels and promotes outstanding performance and an optimal working atmosphere through fairness, transparency and good communication as an expression of appreciation. Professional managers provide support with their diversity competence and gender knowledge.

## HUMAN RESOURCES PLANNING AND PROCEDURES

The recruitment of new staff, which is conducted by including quality-assuring elements, the higher and further qualification of existing staff, the needs- and performance-appropriate distribution of staff positions within the University and enabling professional careers for the academic as well as the non-academic university staff in an interaction between mobility and institutional affiliation are key human resources policy measures which are of major importance for a strong university.

The autonomy of universities and the Collective Bargaining Agreement for University Staff form the basis for strengthening human resources planning, staff selection and human resources development within the University. The University of Vienna carries out strategic human resources planning in a dialogue between the Rectorate and the heads of the organisational units. This includes forward-looking, needs-oriented planning at all levels that serves research and teaching objectives and is efficient, cost-effective, gender-sensitive, suitable for different generations and sustainable in the long term.

According to the current legal situation, permanent professorships can only be advertised on the basis of a subject dedication as scheduled in the Development Plan. The subject dedications for professorships in this Development Plan reflect the strategic goals of the University of Vienna: safeguarding fundamental subjects, improving student-teacher ratios, the further development of cross-faculty research specialisations and strategic priorities. In order to make an overall strategy visible, possible tenure track professorships are also included in the Development Plan as examples alongside the legally prescribed professorships based on section 98 of the Universities Act. This also underlines the importance of tenure track professorships in the overall architecture. Furthermore, the Development Plan includes additional professorships "subject to availability of funds", which would allow the decisive further development of the performance of the University of Vienna and its positioning in an international context in consistent continuation and further development of the 'new university funding scheme'.

For the purpose of enhancing flexibility and to take advantage of special opportunities on the academic labour market, based on section 99a of the Universities Act, a maximum total number of ten posts until 30 September 2027, afterwards a maximum of another ten posts for university professors based on section 99a of the Universities Act until 30 September 2030, is laid down for university professors without subject dedication, which can be filled in international competition for outstanding academic personalities ('opportunity hiring'), so that in justified individual cases a swift appointment can be made by the Rector directly, with the objective of permanent employment while observing consultation rights within the University as stipulated by law also without previous inclusion of a relevant subject dedication in the Development Plan.

### QUANTITIES

#### PROFESSORS

The University of Vienna has included around 50 subject dedications for professorships in this Development Plan, subject to availability of funds, and seeks opportunities for funding these professorships. Due to the cost-cutting measures required in 2022–2024 (including a six-month freeze on calls for applications in 2022–2023), the increase in professorships set out in the last Development Plan could only be partially implemented. But the University of Vienna is pursuing the goal, subject to the political implementation of the gradual expansion of capacity-oriented university funding, of raising the number of university professors (pursuant to sections 98 and 99 of the Universities Act, insofar as they are appointed for at least three years) from around 490 (or, if persons are included who count as professors only for organisational purposes but not in terms of labour law pursuant to section 99, para. 6 of the Universities Act, from around 540) at the beginning of 2023 to around 690 by 2027 (or, if persons are included who count as professors only for organisational purposes but not in terms of labour law pursuant to section 99, para. 6 of the Universities Act, to around 730), and then to around 830 to 855 by 2030 (or, if persons are included who count as professors only for organisational purposes but not in terms of labour law pursuant to section 99, para. 6 of the Universities Act, to around 730). The national and also the international comparison reveals that the number of professorships at the University of Vienna is currently clearly still too low in relation to the number of students and the number of awarded degrees. In fact, almost 30 % of all degrees in Austria are currently awarded at the University of Vienna, which accounts for around 15 % of the total Austrian university budget.

The targeted increase by 2027 is to be achieved mainly through the following measures, which, however, require corresponding budgetary resources:

- advertising and filling the approximately 50 professorships dedicated in this Development Plan subject to availability of funds;
- advertising (in the spring of 2024, for instance) and filling of up to 20 further professorships based on section 99, para. 4 of the Universities Act for associated professors;
- In addition, the number of university professors based on section 99, para. 1 of the Universities Act who are appointed for at least three years should also be increased to a certain extent;
- legal inclusion of the holders of tenure track positions who have been recruited based on section 99, para. 5 of the Universities Act, in each case upon fulfilment of the qualification agreement, in the group of university professors based on section 99, para. 6 of the Universities Act with an estimated total of around 120.

The goal is to achieve the desired increase by 2030 basically by implementing the following measures:

 advertising and filling of further professorships as dedicated in the next Development Plan, subject to availability of funds;

- Subject to rolling development planning to be carried out in 2026: earmarking of a number of additional posts for professorships based on section 99, para. 4 of the Universities Act for associated professors (for vacancies roughly in 2027) of an approximate total of 25;
- legal inclusion of the holders of tenure track positions who have been recruited based on section 99, para. 5 of the Universities Act, in each case upon fulfilment of the qualification agreement, in the group of university professors based on section 99, para. 6 of the Universities Act with an estimated total of around 70 to 90.

### TENURE TRACK

The University of Vienna has strategically expanded tenure track professorships in recent years and wants to continue to do so in the coming years if sufficient budgetary resources are available. In this way, cross-faculty research specialisations and strategic priorities can be expanded, particularly innovative topics can be integrated in teaching and research and the student-teacher ratios can be significantly improved in the medium term. Professorships and tenure track professorships on the basis of section 98 of the Universities Act are part of a concerted strategy to recruit the best academics internationally at all career levels and ultimately retain them at the University of Vienna. Subject to availability of funds, the University of Vienna also strives to provide for 10 subject dedications for additional tenure track professorships (uni:TT) throughout the University in the performance agreement for 2025–2027.

The University of Vienna, subject to the budgetary implementation of the gradual expansion of capacity-oriented university funding, strives to raise the number of filled tenure track professorships ("positions which can be taken into consideration for a qualification agreement within the meaning of section 27, para. 1 of the Collective Bargaining Agreement in the version applicable on 1 October 2015 and concluded according to section 108, para. 3 of the Universities Act") from around 240 at the beginning of the year 2023 to between around 310 and 330 by the year 2027 and then to between around 380 and 420 by 2030.



### 6. Digitalisation

#### SITUATION

Digitalisation comprises the diverse and far-reaching changes that are connected with digital innovations and their effects on individuals, organisations and society. The tasks of academic research are to deepen the understanding of these developments, to investigate opportunities and challenges and to contribute to innovative solutions. The digital transformation creates opportunities and a new scope of action while also entailing risks and uncertainties. It changes our way of thinking, of conducting research, of teaching, learning, exchange and working together.

Digitalisation is in full swing and its momentum has increased further. Within this process, the University of Vienna takes an active and shaping role and a critical and reflecting role at the same time. Due to the quality, diversity, networking and relevance of its research, it has enormous potential to contribute to an understanding of and to help shape the phenomena associated with digitalisation. We are observing significant changes both in society as a whole and within the University, which are having a decisive impact on the University's range of services and the provision of services in research, teaching, knowledge exchange and administration.

Externally, we have observed how digitalisation has played a key role in coping with the COVID-19 pandemic. In this context, the pace of digital technology development has increased significantly and expectations for the rapid availability and implementation of new technologies have also risen sharply for institutions, such as the University of Vienna. At the same time, however, IT security risks have also increased, not least due to changing geopolitical conditions. We are also noticing a widening gap between the increasing demand for digital competences and experts and the available supply on the labour market.

Within the University, we are significantly increasing our capacity, for example in infrastructure, services, personnel and networking between organisational units, and are in the midst of a profound cultural change. Collaborative work, also independent of time and place, with the help of digital tools has become much more important in our institution and is now a natural part of an open and cooperative working style. At the same time, however, we have also noticed that social interaction and informal cooperation have suffered as a result of the need for social distancing due to the pandemic.

In terms of our range of services, we have substantially expanded our digital services, particularly for studying and teaching. These include the establishment of Moodle as a central learning management system and the expansion of the range of e-resources in the University Library. The open and sustainable handling of research data is increasingly supported by the expansion of digital infrastructures and services, for example, through the research data management and data stewardship programme. The focus is also on the balance between the promotion of open science associated with these programmes and the exploitation of ideas and know-how, e.g. in the Digital Entrepreneurship Innovation Lab. Finally, digital technologies play a major role in expanding the communication of our services, e.g. through the digital magazine Rudolphina or our activities on social media.

The way in which we provide our services has also changed significantly as well: In recent years in particular, we have introduced numerous new digital services and provided systems and platforms. In addition to the ongoing consolidation of existing services, further processes and practices in research, teaching, knowledge exchange and administration are being digitalised on this basis. In addition, the University of Vienna invests in numerous projects to improve its administrative processes, to position the evolved structures for the high dynamics of change, and to further develop cooperation using agile, open and straightforward approaches. The deployment of digital technologies is also being greatly expanded on site, although we are still a long way from a university-wide

### supply of state-of-the-art audio/video technology. In addition, we are concentrating on enabling significantly more flexibility in studying and working from any location without jeopardising the advantages of on-site collaboration, thus increasing the attractiveness of studying and working, for example, through working from home, online and hybrid meetings.

In summary, we can say that both the status and the dynamics of global digitalisation have led to substantial changes in our range of services and the way in which they are provided. The benefits of digitalisation are now crucial for excellent research and teaching, deeply embedded in our daily work as well as in the everyday lives of students and essential for the University's resilience to crises. In order to consolidate these successes and help shape the dynamics of digitalisation in a proactive and critically reflected manner, we must continue to strategically develop our services. This requires increasing investment in our infrastructure and services, the development of competences and IT security, as well as sustainable staffing. Therefore, the University needs additional resources to ensure that university members have unrestricted and secure access to state-of-the-art digital services and infrastructures.

### IMPACTS OF DIGITALISATION AS A CROSS-CUTTING ISSUE

In general, the University of Vienna strives to seize the opportunities offered by digitalisation in all its areas ambitiously and prudently to promote its strategic development, increase its international competitiveness, promote high-quality and efficient organisation and administration and increase the reach of academic research. Digitalisation affects everything from the research question to the research methods used, the design of studies and teaching to spinoffs and the reflection on opportunities and risks of digitalisation in the exchange of knowledge with society.

Measures are jointly initiated and implemented at all levels in close coordination between the divisions for the strategic goals of research, internationalisation and promotion of early stage researchers, studying and teaching, knowledge exchange and technology transfer as well as employees, infrastructure and sustainability. In line with the understanding of digitalisation as a cross-cutting issue, all organisational units are working collaboratively to drive forward the fields of action defined by the University of Vienna from a university-wide perspective according to the four impact dimensions of 'enablement', 'efficiency', 'care' and 'resilience'.

**ENABLEMENT AND EFFICIENCY.** In the dimensions of 'enablement and efficiency', digitalisation opens up new perspectives and potentials that would hardly be achievable without it and at the same time increases the efficiency of administrative processes. These dimensions go hand in hand, complement and reinforce each other, drive the increase in quality and excellence and open up new strategic perspectives. Examples of this include the further development of onboarding and further training for employees to increase their competences in implementing digital innovations, the further expansion of services and infrastructures to improve the quality, transparency and reuse of research data, processes and results, and the digitalisation of other administrative processes and services. University members should have access to the latest digital technologies and be able to use them productively and contribute to their further development.

Developing (digital) competences through onboarding and professional development. The digital transformation at the University of Vienna essentially involves the further development of systemic resources and skills. These organisational capacities serve to open up the constantly expanding technological possibilities for the University in order to design, develop, operate and use meaningful digital innovations for all areas of the University. Capacities are also required to coordinate the user-centred (further) development of new and existing digital services and systems in order to have a coherent impact on university operations.

To this end, the University of Vienna provides, in particular digitally-mediated, offers for the continuous, also self-organised further development of (digital) competences, which are consolidated, supplemented as required and structured for specific target groups. The aim is to establish centrally coordinated processes and a platform that also enables data-based decisions for the high-quality design of continuing education programmes. This pooling of processes also addresses the convergence of the continuing education needs of researchers, teachers and employees in professional administration (see chapter 5: Employees). At the same time, onboarding services for employees and students should be more closely interlinked and also communicated digitally. This applies to areas such as recruitment and admission to degree programmes as well as to the creation of comprehensible and secure access to university services and systems.

Improving the quality, transparency and reuse of research data, processes and results. Digitalisation makes research more dynamic, productive and effective. The University of Vienna is actively committed to open science with the aim of increasing the quality of research, improving the exchange of knowledge within academia and with society and strengthening trust in academic research. To this end, modern and secure digital infrastructures are available to support data collection, processing, analysis, interpretation and dissemination as well as access to cross-university, European and international digital research infrastructures.

This includes repositories for research data, computing capacities for data analyses and simulations as well as the network infrastructure to be able to transfer data between data-generating, analysing and archiving systems. In order to be able to use modern digital research infrastructures successfully, university members can make use of training and counselling offers ranging from the conception of a research project to the archiving of results. Moreover, the dynamic development of digital solutions that are relevant for researchers requires close cooperation between academics and technical experts. Investments in personnel, organisational and technical infrastructures are key pillars in this context. One focus is the expansion of research data management and the data stewardship programme, for example through a legal help desk that supports researchers with legal issues relating to the handling of data.

Accessing, preserving and presenting digital knowledge. In addition to promoting open science and digital technologies to expand research opportunities, it is also crucial to strengthen trust in the University. This includes, in particular, the University Library as a central institution for cataloguing, preserving and presenting knowledge. For example, we recognise the need to develop strategies and infrastructures for the long-term archiving of web applications in order to ensure their future functionality. The University thus contributes to the creation of an institutional digital memory and to the preservation of the wealth of knowledge maintained and constantly expanded by university members in the digital age.

Modernising digital and physical teaching and learning spaces. The University of Vienna is positioning itself as a university embracing the digital and on-site realm (see chapter 2: Studying and Teaching). Specific offers and interdisciplinary content on digital competences enable students to better understand and actively shape digitalisation. The University responds to students' expectations for access to digital resources and interaction independent of time and place and prepares them for the opportunities and challenges of digitalisation. To this end, the use of Moodle as a central learning management system together with its integrated didactic functionalities and interaction systems will be further intensified and u:stream will be expanded as a video platform. We are focussing on the integration of open educational resources (OER) and the use of Massive Open Online Courses (MOOCs) in order to expand our range of courses and promote free access to knowledge.

At the same time, the University is prioritising the further development of its physical infrastructure, with the integration of digital technologies playing a central role. The aim is to create multifunctional spaces that both fulfil digital requirements and offer space for interaction and collaboration on site. Well-coordinated space management and the expansion of room booking options are the necessary prerequisites for this (see chapter 7: Infrastructure). Digitalising and further developing administrative processes and services. The University of Vienna recognises the fundamental change in expectations towards organisations due to the increasing availability of digital innovations. It strives to fulfil these expectations in terms of user experience, processes, services and infrastructure for research, teaching and studies. In addition, it takes into account the expectations of employers towards graduates, of employees towards their workplace and of cooperation partners and society as a whole towards a professionally organised university. The University uses digital technologies to increase its attractiveness as an employer and to support university members in the fulfilment of their tasks through suitable systems, infrastructures and training opportunities.

The aim is to increase efficiency by further digitalising administrative processes and further developing processes that have already been digitalised, for example in controlling, finance, human resources, studies and teaching. This often requires costly and personnel-intensive measures as well as support, including communication, for the associated organisational change processes. On this basis, services are created that can be used by employees (employee self-services) and managers (manager self-services) and at the same time provide the information basis for well-founded decisions. **RESILIENCE AND CARE.** Digitalisation creates opportunities and expands our scope for action, but also harbours risks and uncertainties. The impact dimensions of 'resilience and care' require a coordinated, responsible, appropriate, inclusive and secure approach to digital technologies and also include activities to ensure information security, data protection and digital sovereignty. Resilience means being able to remain secure, flexible and robust despite changing challenges. Measures for resilience and care enable us to utilise the opportunities offered by digital innovations competently and at the same time face risks and uncertainties with appropriate composure.

Intensifying collaboration within the University. The digital transformation promotes open and collaborative working methods, the exchange of experience and the intensification of cooperation with partners. The University of Vienna strives to strengthen collaboration within and between organisational units digitally, hybrid and on site by creating spaces and opportunities that stimulate productive exchange between different groups of university members. With formats that promote a broad discourse, the exchange of knowledge and the development of ideas, the University also aims to identify university-wide needs, test technological innovations and develop and critically reflect upon digital solutions. Examples include regular digital events, such as the Digitalisation Resonance Board or the IT4Science Forum. In order to support collaboration within the University, digital exchange options are already in use, for example in Moodle, on the intranet and on the u:wiki, which are constantly being further developed.

At the same time, the University of Vienna promotes the most comprehensive and coordinated digital transformation possible by coordinating and supporting digitalisation projects and cross-departmental initiatives, knowledge exchange and knowledge development at as many levels of the University as possible.

It networks the activities of the faculties, centres and service units for digital transformation and promotes cooperation between academia and administration. The aim is open and trusting collaboration between stakeholders with diverse perspectives and complementary competences. In conjunction with suitable framework conditions, this ensures organisational resilience in a rapidly changing world and the responsible and safe use of digital technologies.

*Integrating artificial intelligence with care.* The University of Vienna is committed to integrating artificial intelligence (AI) with care in research, teaching and administration. Thanks to its in-depth academic expertise, its disciplinary diversity and the interdisciplinary approaches reinforced in its cross-disciplinary structures, the University

is convinced that it is ideally positioned to pose new research questions and play a key role in technological development, such as the interweaving of AI and quantum technologies. At the same time, it can understand and help shape both the individual and social effects on people as well as the systemic effects on academia, the economy, society and the environment (see also strategic priority digital and data-driven transformations of science and society).

In doing so, we take into account both the dynamics of AI developments, for example through experimental approaches in research, teaching, entrepreneurship and administration, as well as the need to carefully assess opportunities and challenges, for example by contributing academic expertise to the discourse of society. In addition to the specialist disciplines that are driving the development of the mathematical, statistical and computer science foundations, the University aims to further expand research on and with AI methods and applications, particularly in its strategic priorities. Special attention will also be paid to the development of didactic approaches for the education of future generations in schools and universities that take into account the special requirements, opportunities and risks of different disciplines.

The University of Vienna recognises the enormous potential that AI offers for the advancement of academic research and the development of new fields of research. We are observing a number of trends that are changing both our research practices and the way we deal with research results and their communication and impact on culture, business and society. In mathematics, computer science and data science, intensive research is being conducted into AI and machine learning models that have almost universal application even in traditionally non-technical disciplines. At the same time, ethical and legal issues relating to the use of AI are being researched at the University of Vienna and the results are shared with the public. Data protection and intellectual property issues in research must be carefully scrutinised. Used in a meaningful way, AI can accelerate academic progress for the benefit of humanity and the environment by complementing and expanding the skills of academics not only in analysing data, but in all aspects of academic activities, from stimulating creativity to communicating results. In order to keep pace with the dynamics of technological development and its effects, considerable investment in personnel and infrastructure is required. We thus provide university members with access to appropriate services and infrastructures - both within the University and as part of cross-university collaboration - and utilise national and international alliances, for example in the field of high-performance computing (see chapter 7: Infrastructure).

We also support them by providing cloud-based AI services, such as Microsoft Azure Cognitive Services, Azure Machine Learning and Azure OpenAI Service. In the area of teaching, AI no longer only plays a decisive role in subject-specific study programmes, but across the board in both the current and future development of the University of Vienna. AI tools can be used in many aspects of teaching, which can be summarised in three main areas. Teachers are encouraged to use the latest technologies and tools to ensure research-led teaching at the cutting edge and to adequately prepare students for the labour market. A conscious and reflective use of AI tools can support students in achieving their learning objectives, developing competences in using these tools and gaining a realistic understanding of the capabilities, opportunities and risks of these tools in order to complete their tasks with quality and efficiency. It is important to find and dynamically develop solutions for an ethically reflected and legally secure use of AI tools and to restrict potential misuse, without unnecessarily restricting the experimental scope for students and teachers.

In the area of administration of the University of Vienna, AI also expands the possibilities for the digitalisation of administrative processes, which can lead to a reduction in processing times and in the workload of employees, creating space for new and improved services. In addition to technology monitoring, the identification of possible applications and pilot projects within and between organisational units, the organisational, legal and technical framework conditions for the operation of AI-based systems must be clarified and communicated transparently. Employees should be given the opportunity to familiarise themselves with the new technologies and be provided with information, training and opportunities to share experiences for the use of the constantly growing range of AIbased services, including the often cloud-based platforms and systems used by the University.

*Promoting digital accessibility.* Digital services should be accessible to all, regardless of their physical or cognitive abilities. The University of Vienna is therefore committed to promoting digital accessibility and is taking technical and organisational measures to ensure that all students and employees can use digital services without restriction as far as possible. These measures are being implemented step by step together with the organisational units.

*Strengthening IT security*. As a leading educational and research institution, the University of Vienna is aware of the importance of a reliable IT infrastructure. Sensitising university members to IT security issues in order to promote a secure digital environment is a priority. This is supported by the development of behaviour being aware of security concerns and the provision of training and information campaigns. In addition, the University relies on modern and robust security technologies to protect its digital infrastructure

from potential threats. The further development of the administration of identities and access rights of university members for digital systems improves the user experience and serves to increase the security of our systems.

The University's IT security should also be continuously and preventively improved by constantly monitoring the systems in coordination with partners within and outside the Austrian higher education system and adapting them where necessary. With these measures, the University of Vienna ensures that it fulfils its responsibility towards its members and society and provides a secure and reliable digital space for teaching, research and collaboration.

Ensuring digital sovereignty. This is not about self-sufficiency, as universities cannot produce all the necessary hardware and software themselves. Rather, the aim of digital sovereignty is to maintain autonomy as the ability to develop the University of Vienna's services and organisation independently and proactively and to react to changes and threats in its digital environment. The University of Vienna is pursuing a tripod strategy: Firstly, it relies on open source software wherever possible and sensible. Secondly, it makes use of commercial applications and services when specific needs require this. Thirdly, it prioritises developments that emerge from the university system, are tailored to it and promote the autonomy of universities in the design of their digital systems. In addition, the University of Vienna continues to strive to ensure the environmentally-friendly operation of IT systems. This includes resourcesaving IT solutions and measures to reduce the environmental impact of digital services.

Using cloud services securely. The University of Vienna aims to use innovative cloud services for research, teaching and administration efficiently and securely. Data in the cloud must be processed in compliance with the GDPR and according to current information security standards. For example, cloud providers need to be evaluated, particularly with regard to their reputation and their services in terms of reliability and availability. In addition, for example, service managers must be appointed, including for data backup, a user management system must be developed and an exit strategy must be prepared. Attention must be paid to the appropriate and economical use of resources. This is achieved through measures in the areas of education, counselling and technology.

## INTER-UNIVERSITY COOPERATION

Strengthening networking through academic cooperation. The University of Vienna strengthens its international presence by actively participating in networks and initiatives that support digital higher education. It participates in European networks such as the EuroCC Competence Centre for Supercomputing and the European Open Science Cloud (EOSC) as well as the activities for the digital transformation in the European University Association (EUA) and The Guild in order to develop its strategic objectives and measures in collaboration with partners and thus strengthen European higher education as a whole (see chapter 1: Research and Career Development of Early Stage Researchers). In addition, the University of Vienna is part of the Circle U. alliance, an association of research-intensive European universities that promotes mobility and entrepreneurship with a focus on the use of digital technologies, for example, and thus gives students access to international experience. In cooperation with European universities, the University is committed to human-centred digitalisation in the European style and to recognising the special role of universities due to their diversity, wealth of experience and high potential for innovation. Digitalisation is characterised by respect and responsibility towards all people in their diversity and the preservation and development of our cultural heritage. The design of digital offers should therefore follow certain principles, such as openness, participation, sustainability and inclusion.

Developing cross-university digital services and infrastructures. The dynamic digital development of the higher education system requires an increased level of cooperation from universities, both at the national and international level. Digital transformation processes are often driven by platform providers, e.g. through research, learning and exchange platforms. Students and academics create added value as users by sharing data, results and services, thus producing considerable network effects that are marketed by the platform providers. Such developments pose particular challenges to institutions, such as universities, in terms of their positioning visà-vis the platforms that are important for students and academics, which they can only tackle together.

Financing the digital transformation of the higher education system will continue to require additional budget with the aim of jointly procuring, developing and operating services and systems wherever possible. In addition to European initiatives, national initiatives for cooperative digital transformation processes should also be strengthened, for example through ACOnet, ACOmarket and an active community of experts, in order to assess future opportunities and challenges and to design and implement further cross-university projects.

![](_page_88_Picture_0.jpeg)

### 7. Infrastructure

### STARTING POINT

As a result of advancing digitalisation and the experiences of the COVID-19 pandemic, the university-related world of work and study is undergoing a major transformation. New teaching formats, hybrid forms of teaching and communication as well as the changing needs and expectations of students are leading to changing demands on the spatial and digital infrastructures of universities. At the same time, the demands on IT infrastructure and highly specialised large-scale equipment infrastructure are increasing.

For an inner-city university like the University of Vienna, which is fragmented across many locations, the infrastructural challenges over the coming years are as follows:

- The University of Vienna needs more areas for learning and interaction for students. As things are at present, the University of Vienna is clearly under-equipped in this respect – even by national standards. In order to remain attractive to students in the face of advancing digitalisation, sufficient and well-equipped spaces for (physical) interaction and communication play an increasingly important role. At the University of Vienna, Student Spaces are rooms and areas that can be used flexibly and are open to students for communication, exchange and collaboration, but also for reading, studying and in-depth work. Student Spaces can be supervised and equipped with service functions, for example in the libraries, but can also be completely freely accessible with the possibility of eating there, for instance.
- The University of Vienna needs more space (offices, laboratories) for academic staff, especially in view of the expectation of continued high third-party funding. This also applies when taking into account the expected spacesaving potential of working from home and the resulting shared use of workplaces (desk sharing) in areas where

this is possible and realistic. Growth is also necessary for laboratory space and communication areas for creative exchange as well as development areas ('maker spaces'). Common areas are important for the further development of interdisciplinary cross-departmental research structures and doctoral schools. In many places, the spatial and digital infrastructures do not currently meet the standards required for a digitally adept university that is attractive to staff and students. Many room concepts are too rigid and offer no opportunities for flexible use. Rooms are not sufficiently equipped digitally to enable hybrid forms of learning and communication.

- The University of Vienna needs a digital space management system as a basis for the efficient allocation and utilisation of space.
- The location concept of the University requires further consolidation. The sometimes very high fragmentation of individual faculties across many locations should be reduced in order to facilitate greater exchange, intensify research cooperation schemes and exploit synergies.
- In high-tech research (e.g. in physics), the need for locations for interference-free high-precision measurement is increasing.
- The demand for IT infrastructure and high-performance computing as well as acquisition and operating costs for large-scale equipment infrastructure are increasing significantly.
- The operation of university infrastructure should become largely climate-neutral (see chapter 8: Sustainability).

There is a need for refurbishment at many of the locations of the University of Vienna, partly due to age-related wear and tear, outdated technology or the need to comply with legal requirements regarding occupational health and

safety (e.g. accessibility, fire safety) or workplace permits.

The following sections describe the objectives and plans resulting from this evaluation, ranging from long-term location planning to medium and short-term measures based on functional objectives and infrastructural requirements.

### LOCATION PLANNING

The location concept of the University of Vienna is determined by the following necessities:

- reduction of fragmentation of organisational units through consolidation at large locations;
- expansion of areas for Student Spaces, communication areas, laboratories and offices;
- sustainable solutions for interference-free highprecision measurement.

By reducing the fragmentation of faculties and centres, academic exchange and creativity should be promoted and synergies better exploited. Compared to most other Austrian universities, the University of Vienna is significantly under-equipped in terms of space relative to the number of students, staff and third-party funding. In particular, a significant lack of Student Spaces at some locations threatens to diminish the attractiveness of the University of Vienna in the medium and long term. In view of advancing digitalisation and the growing importance of online teaching formats, the availability of well-equipped spaces for (physical!) social interaction and communication is essential.

This applies not only to spaces for students, but also for employees. In many locations, office and laboratory capacities are overutilised and offer no opportunity for further expansion. In view of the numerous new professorial appointments in recent years and a fortunately still high level of third-party funding, this situation repeatedly presents the University of Vienna with infrastructural problems because the increase in third-party funding either requires further space-saving measures or additional space to be rented at other locations, which leads to further fragmentation of faculties and centres. Both solutions reduce the attractiveness of university locations and lead to additional friction. In addition, there is an increasing demand – particularly in physics – for spaces in which measurements can be carried out largely free of interference (vibration-, shock- and radiation-free). This is becoming increasingly difficult in inner-city locations, also due to the ongoing expansion projects for underground lines, and needs a sustainable, viable location concept for such requirements.

Accordingly, the location strategy is based on four central projects:

- The building of the *extension* in the inner courtyard of the building at Währinger Strasse 38–42, which has already been started and will be completed by the end of 2024, will provide an urgently needed increase in workplace and laboratory capacity in physics. Talks are also currently underway with TU Wien and BMBWF regarding a joint location for physics at Vienna Arsenal.
- With the construction of a *book depository* in Vienna's 21st district (together with TU Wien, the University of Applied Arts Vienna, the Vienna Academy of Fine Arts and GeoSphere Austria), the Library's book collection will be permanently relocated from the Main Building. The space made available in the book towers of the Main Building will be renovated (in accordance with fire protection and evacuation regulations) and will primarily be used for modern and attractive Student Spaces. These projects are being carried out by Bundes-immobiliengesellschaft m.b.H (BIG) and should be completed by 2026.
- A building will be built for quantum physics (known as the *Quantum Cube*) in Hof (court) 2 on the University Campus. This will create laboratories and jobs to cover urgently needed requirements, which have arisen primarily in the context of extensive high-level third-party funding (ERC, FWF clusters of excellence, Quantum Austria). These investments are urgently needed in order to remain an international leader in quantum research.
- An educational campus is planned to be created on the sites of the former UZA1 and the former University of Economics and Business, integrating UZA2. The so-called *Campus Althangrund* is to be occupied by the University of Vienna, the University of Natural Resources and Life Sciences, Vienna and a school and, looking to the future, will meet the requirements of a university embracing both, the digital and the on-site realm in light of the ongoing changes in the world of teaching, learning and work.

In particular, the University of Vienna intends to locate the Faculty of Social Sciences (currently spread over 15 locations) and parts of other faculties (in particular the Faculty of Earth Sciences, Geography and Astronomy and the Faculty of Historical and Cultural Studies) on this Campus. It is expected that it will be possible to move into this Campus in 2030 at the earliest.

The relocation of the Faculty of Social Sciences to Campus Althangrund means that the space that becomes available will be given up or put to alternative use. This reduces the number of locations of the University of Vienna and creates opportunities for spatial restructuring, which can also reduce the fragmentation of other organisational units. In this context, the possibility will therefore also arise for alternative uses of space (communication areas, Student Spaces, more open workspaces) in line with the above-mentioned objectives.

However, the additional demand for Student Spaces, communication areas, laboratory spaces and workspaces will not be fully covered by the above-mentioned projects. Part of the requirement for additional space will be mitigated by potential shared use of workplaces – in areas where this is possible and practicable. However, the expected amount of space gained through desk sharing is small compared to the total space required. Accordingly, the planning of further longterm development projects and strategic decisions regarding the long-term positioning of (largely) interference-free high-precision measurement are essential.

Depending on this, a decision must be made as to which additional locations appear sensible for the sustainable further development of the University of Vienna. In this context, the location of the (former) pre-clinic of the Medical University of Vienna, Währinger Strasse 11–13a, is being examined in order to create sustainable laboratory capacities and expansion options, as well as space for spinoffs and start-ups. The location concept also forms the basis for notifications by the University of Vienna according to the infrastructure roadmap (section 118 of the Universities Act).

### FUNCTIONAL OBJECTIVES FOR AREAS AND SPACE

The infrastructure strategy of the University of Vienna is guided by the principle of a university embracing both, the digital and the onsite realm, in which space is used more efficiently and flexibly and in which teaching, learning and working environments become more attractive and more functional in line with subject requirements. The aim is to promote exchange, cooperation and creativity and to exploit synergies.

This results in the following functional objectives:

- For students, the University is a place of (research-based) learning, communication, interaction and development of student projects. Sufficient space is available for this.
- The rooms offer functionalities (digital equipment, furniture, space) that are not available online or at home – making it attractive for students to come to the University.
- Course rooms are equipped for digital teaching and studying with flexible furniture and can, in most cases, be converted flexibly into meeting places.
- Course rooms can be booked by students and staff outside regular times of use.
- Workplaces and workspaces are generally more open than in the past, offering more flexible working environments that are functional and equipped based on the needs of the subject and promote cooperation, exchange and creativity. At the same time, there is enough space for undisturbed work and discussions in small groups. The workspaces have a spacious design, allowing users to adjust their distances. Working from home and desk sharing can thus be integrated in a natural way.

- In areas where this makes sense in terms of the subject, it is increasingly possible to choose the workplace freely. This choice is determined by the respective activity and requirements.
- Individual offices are still available, but are smaller to make space for interaction areas.

Possibilities for alternative uses of space and structural adaptations at the main locations of the University are being examined with the involvement of the organisational units, and relevant concepts are being drawn up and evaluated. At some locations, the outsourcing of printed media makes new usage concepts possible. Subject to availability of funds, the projects arising from these considerations are being gradually implemented, if necessary some initially as pilot projects. Accordingly, course rooms are also being equipped, initially as part of pilot projects and then on an ongoing basis, for digital teaching and learning and more flexibly in terms of furniture. The establishment and introduction of a modern space management and booking system is also necessary for a more flexible use of course rooms.

To achieve these goals, conversion work on existing buildings is necessary in order to make alternative and more flexible use of existing space. While this can sometimes only be implemented to a limited extent in existing buildings, the corresponding requirements are planned and implemented from the outset as part of new buildings or conversions (see below).

## OTHER ONGOING AND PLANNED CONSTRUCTION PROJECTS

In addition to the projects mentioned above that are central to longterm location planning, there are a number of conversion, expansion and refurbishment projects:

- Achieving climate neutrality by 2030 will require extensive investment in building renovations as well as building and energy technology (see chapter 8: Sustainability).
- At the observatory (in Türkenschanzstrasse), extensive renovations and conversions are necessary for workshops, preparation rooms and the location of large instruments.
- At Dr.-Bohr-Gasse 9 (Max Perutz Labs), extensive renovations to the water pipes are necessary.
- Extensive investments will be necessary at the University Sport Institute (Schmelz location), including gym renovations and the construction of a new fitness centre.
- The step-by-step plan to create structural accessibility will be continued in order to meet related standards, particularly in the 12 largest current locations and all new buildings. This and measures in connection with permits for places of employment require significant investment in planning processes and conversion work.

# SERVICES AND DIGITALISATION REQUIREMENTS

Infrastructural services are also being created or improved in order to achieve the above-mentioned objectives. The focus is on several projects:

- Establishment of a modern space management and booking system. This will make it possible to manage a large part of the rooms transparently and efficiently, indicate any pre-booking rights or restrictions and make any use of space easy to see for staff and students. It should be possible for staff and students to book course rooms outside of the regular times of use, which will contribute to higher and more efficient utilisation of the space. Such a system needs to be combined with a corresponding digital access system for rooms.
- Further consolidation of the digital service desk to make internal services available at a central location. This will be combined with better and more binding communication about the status of current enquiries or problems.

# HIGH-PERFORMANCE COMPUTING AND CORE FACILITIES

Demand in the area of high-performance computing has increased dramatically in recent years and will continue to rise significantly. The importance of data- and computing-intensive research has now reached almost all disciplines and has become a decisive factor for competitiveness in cutting-edge research. Accordingly, significant investments in IT infrastructure are still required. This concerns local computing structures at the University of Vienna as well as, in particular, large IT infrastructure in cooperation with other Austrian universities and as part of networks of European infrastructures. The focus is on the further development of the Vienna Scientific Cluster (VSC) into an Austrian Scientific Cluster (ASC), supported by the three locations Vienna (University of Vienna and TU Wien), Linz and Innsbruck and administered by Advanced Computing Austria (ACA). In this organisationally renewed form and with a new name, the aim is to position the cluster, also in its public image, as a high-performance computer centre for the whole of Austria. The collaboration aims to develop a comprehensive concept for digital teaching and research, which also includes access to highperformance computers. Via the Austrian Scientific Cluster, users of HPC infrastructure are planned to be provided with both broader and concrete subject-specific expertise and support.

The University of Vienna will continue to participate in the closely linked HPC competence centre EuroCC-Austria. As a central HPC contact point, EuroCC is intended to promote cooperation with industry and support the development of economic activities, especially also for non-university partners in Austria. This type of cooperation allows budget funds to be used more efficiently, synergies to be created, capacity utilisation to be optimised and regular reinvestments to be made easier. Pooling resources will make it possible to achieve and maintain an internationally competitive standard in high-performance computing in the long term. The University advocates that public funding authorities continue to enable participation in European funding schemes or joint projects in highperformance computing, such as EuroCC, PRACE or MUSICA, in order to expand existing structures (as part of an ASC). Cooperative use will also be further intensified in the area of research equipment infrastructure. Investments in state-of-the-art equipment infrastructure are essential in order to remain internationally competitive, to appoint top researchers at the University of Vienna and to create the necessary conditions to be able to attract competitive third party-funded projects. The cooperative use of research infrastructure has proven to be an important starting point for initiating innovative and interdisciplinary research projects at the location. Offering services to external partners from industry should further increase the attractiveness of collaborations in the context of application-oriented and applied projects.

In order to increase efficiency in acquisition and use and in view of the constantly rising costs of high-tech and highly specialised infrastructure, cooperative use of equipment within the framework of core facilities remains essential. Such cooperation schemes are intensified in particular in line with the strategic priorities of the University, extended beyond the University's boundaries where possible and subject to uniform guidelines. Existing facilities will be brought into line with these requirements wherever possible. Accordingly, harmonisation of the framework conditions for fair joint and (at least partially) cost-bearing usage of equipment is emerging. Joint regional initiatives (e.g. the Vienna Biocenter Core Facilities (VBCF), the Vienna Life Science Instruments (VLSI)) support the synergistic use of equipment at the research location, participation in European large IT infrastructure projects (ESFRI/ERIC) increases the international visibility of Viennese scholars and their infrastructures, and there are opportunities for joint acquisition of European research funding.

### OCCUPATIONAL HEALTH AND SAFETY

In the area of occupational health and safety, prevention will continue to be one focus. Staff training is being further developed and systematised. It is planned to develop an online tool (see chapter 6: Digitalisation) that will enable regular online courses/instruction to be held in combination with mandatory reviews.

This ensures that instruction is mandatory across the University and that employees are regularly informed about relevant specifications, risks or requirements and any changes to regulations.

Ongoing and current restoration work on the fire safety infrastructure (e.g. in the Main Building and Faculty of Law/Juridicum), which are carried out in cooperation with the buildings' owners (e.g. BIG), increase occupational safety. Accordingly, evacuation drills are also carried out regularly and the aforementioned training tool is used to intensify training also in this context.

### IMPLICATIONS FOR THE BUDGET

The strategies and plans listed above have a long-term perspective and form the basis for the successful and targeted further development of the University of Vienna. Some of the measures require the availability of additional funds and corresponding consensus with the responsible ministries.

This particularly applies to the following:

- the construction of Campus Althangrund;
- investments due to additional space being required (rentals or new constructions) and the creation of infrastructural framework conditions for more efficient use of space;
- investments to achieve climate-neutral university operations;
- investments in high-performance computing for the infrastructural expansion of a VSC into an ASC as well as ongoing operations;
- renovations or extensive conversion work due to changes in legal requirements, e.g. in the field of occupational health and safety.

To achieve the goals related to the location concept, the support of the Austrian Federal Ministry of Education, Science and Research (BMBWF) and the corresponding approvals from the Federal Ministry of Finance (BMF) are required. In addition, the University of Vienna once again emphasises the need to introduce cost-covering overheads of the Austrian Science Fund (FWF) in order to be able to cope with the sometimes very costly infrastructural measures associated with the acquisition of third-party funding in laboratory-intensive disciplines. Dedicated funding measures for research infrastructure (e.g. R&D infrastructure of the Austrian Research Promotion Agency (FFG), digital infrastructure, or similar) continue to be essential for maintaining the competitiveness of the location.

### VIENNA UNIVERSITY LIBRARY AND ARCHIVE

The University Library acquires, indexes, stores and communicates physical and digital collections. As a knowledge hub, it is a competence centre where academics are advised and supported along the entire research life cycle with regard to the handling of research data and results and their preparation for research-led teaching and knowledge exchange. This includes, for example, advice on the development and implementation of data management plans, the introduction of datasets and research objects into repositories, the development and indexing of open educational resources as well as bibliometric and scientometric analyses, also as indicators of the impact of research and knowledge exchange activities.

In view of the challenges posed by science scepticism, fake news and AI, the storage of originals is a central task that the University performs as part of its responsibility to society.

The University Library contributes significantly to the attractiveness of studying on site by offering not only places for focused reading and working, but also areas for communicative exchange, joint work on student projects and participation in digital formats. The University Library will work in a target group-oriented and participatory manner on the further development of its services to provide the best possible support for research, teaching, studies and knowledge exchange, thus enabling user-oriented and effective access to high-quality library resources. This also includes the programmes for teaching information literacy. A particular focus will be on the proactive further development of digital services, e.g. on open science, research data management and data stewardship. This requires cooperation at the national and international level, which is ensured by participation in relevant networks and projects.

The Vienna University Library and the Vienna University Archive document the history of the University of Vienna regarding its culture and scholarship. By maintaining, appraising and presenting historical groups of items and academic special collections, the University of Vienna contributes to the preservation of significant cultural assets. This also includes the contemporary handling of digital, archive-worthy artefacts in the sense of an organisational memory.

### 8. Sustainability

### STARTING POINT

As the largest university in the German-speaking area and an influential, nationally and internationally visible location for research and education, the University of Vienna serves as a role model and bears responsibility for its impact on the environment and society. As one of the largest employers in the City of Vienna and the country's largest establishment for teacher education, the University of Vienna is a key disseminator for the communication of values and principles for sustainable action and sustainable development in society. The University of Vienna therefore has a responsibility to play a pioneering role by making an active contribution to achieving sustainability goals and consciously integrating the principle of sustainability into university development and profile building.

At the same time, the University of Vienna plays an important role as a pioneer and shaper of academic discourse in order to meet technological, economic and social challenges and contribute to sustainable developments with solutions. This helps to ensure that the University of Vienna is attractive to students and employees.

A central goal of the University's sustainability strategy is to achieve climate neutrality by 2030. The University of Vienna contributes its share to achieving the climate targets of the Republic of Austria and the European Union. To achieve this goal, an initial roadmap was drawn up in which corresponding  $\rm CO_2$  reduction paths and measures were defined. The roadmap forms a valid basis and a starting point for the further development of the sustainability strategy.

### FOCUS AND STRATEGY OF THE UNIVERSITY OF VIENNA

In the current development planning period, the University's sustainability strategy is being further enhanced and systematised. The United Nations' Sustainable Development Goals (SDGs) serve as a point of reference. The University aims to integrate sustainability in key strategic fields of action and sustainability guidelines in the University's central tasks and missions.

The sustainability strategy is dovetailed with the University's core tasks of teaching and research in such a way that it does not stand in the way of the further development of the University of Vienna, but rather understands the strengthening of academia and the quality of education as inherent goals of sustainable development. The international competitiveness of the University of Vienna is essential for maintaining Austria as a location of academic study and is therefore – also in terms of the SDGs – an integral part of responsible sustainable action.

The University's sustainability initiative is clearly committed to the goal of climate neutrality by 2030, but does not lose sight of the equally important idea of social sustainability. Key areas are:

- climate neutrality by 2030
- biodiversity
- · sustainability as a topic area in teaching
- sustainable nutrition and supply
- · sustainable procurement and infrastructure
- · outreach, communication and formation of networks.

The creation of relevant concepts and the necessary measures require the establishment of a systematic and transparent structure and clear guidelines for acceptance, consensus building and involvement. As a central element of these structures, the University is setting up a *Sustainability Office* to coordinate and drive forward the University's sustainability activities. The Sustainability Office is currently formally a subunit of Facility and Resources Management, but is subject to direct supervision by the Vice-Rectorate for Infrastructure.

In addition to providing information in the university boards, the sustainability initiative is also integrated in the University via a Sustainability Advisory Board. The Sustainability Advisory Board is an ad-hoc body that supports the Rectorate as an advisory body and provides recommendations and proposals for measures. The composition of the advisory board is broad and diverse, its members also act as disseminators of the sustainability initiative within the University and contribute to the flow of information and exchange with the respective organisational units. Accordingly, the body is also characterised by a high degree of permeability so that additional members and possibly also other grass-roots initiatives can be easily integrated. By putting the advisory board on a broad basis, a culture of trust and feedback is to be created in which critical and controversial points are addressed and discussed comprehensively and transparently. Specific topics can be dealt with in working groups of the advisory board. The Sustainability Advisory Board and the relevant working groups are coordinated and supported by the Vice-Rectorate for Infrastructure and the Sustainability Office.

An important next step is the creation and internal publication of a *UNIVIE Green Paper*, which describes the central elements and measures of the University's sustainability strategy and is continuously updated on the basis of new findings, evidence and concepts that make it necessary to adapt or expand the strategy. The sustainability activities are linked to a corresponding *communication strategy* that provides regular information both within the University and externally via the intranet and Internet.

The University's sustainability strategy is a central operational element in the strategic priority of climate, environment, sustainability and is given academic support, for instance, due to its close links with the *research network Climate and Environment*. This network acts as a point of contact for academic questions from the Sustainability Advisory Board and communicates them to the respective experts. Research results from the network that are relevant to the University's sustainability initiative are included in the strategy. There is regular exchange with other academics and institutions via the research network Climate and Environment, but also via international and Austria-wide *university networks*. The exchange with the City of Vienna is also particularly important at the location of academic study.

### MEASURES

To achieve *climate neutrality by 2030,* the roadmap drawn up in 2022 contains a catalogue of measures that is implemented and adapted on an ongoing basis. Such adaptations are necessary in order to incorporate new findings from climate and environmental research, to utilise newer or more precise data material and to take into account advances in evaluation methodology, e.g. through further development of the ClimCalc tool.

The following goals are formulated in the roadmap:

- reduction of energy use (especially electricity and district heating) through savings and more efficient use of energy
- changing to 100 % certified eco-power
- reducing emissions from business trips and stays abroad as well as from commuter mobility
- reducing the use of materials and new purchases, e.g. of paper and IT equipment
- reducing greenhouse gas emissions through laboratory activities
- · offsetting measures.

Different measures are required to achieve these goals depending on the area concerned. These include significant investments in building renovations as well as in building and energy technology to reduce energy use (e.g. photovoltaics, energy management, thermostats, etc.), for which additional university budget is also required.

Reducing emissions caused by travel activities requires the development of incentive and regulatory concepts based on classifications of travel on which consensus can be reached (e.g. by type of transport, distance, urgency, frequency, opportunity costs, etc.). In order to evaluate measures, it is particularly important to establish a valid database for recording travel-related emissions. In order to reduce emissions caused by commuter mobility, in addition to incentives to use public transport or bicycles, cooperation with the City of Vienna must be intensified in order to improve and expand the cycle path infrastructure. Reducing emissions through laboratory activities requires the creation of databases to record material use and consumption and the development of measures that may also need to involve non-university partners (in procurement, recycling, etc.).

Finally, concepts for effective offsetting must also be developed because a residual footprint of around one third of the original greenhouse gas emissions can be expected after successful implementation of all reduction measures.

Further measures result from the above-mentioned priorities in the areas of biodiversity, sustainability in teaching, sustainable nutrition and supply, sustainable procurement and infrastructure, as well as outreach, communication and formation of networks:

- In addition to achieving climate neutrality, the promotion of biodiversity as a physical foundation is a necessary prerequisite for the potential success of all SDGs.
  To increase biodiversity, concepts for (additional) green and natural areas, e.g. on roofs and in inner courtyards, and their use are being developed. At the same time, the University makes an important contribution in this context through dedicated biodiversity projects in the life sciences (e.g. Almtal, Affenberg, etc.).
- The role of sustainability in teaching is being strengthened. In addition to improving the presentation and preparation of content already included in the curricula, sustainability is being further developed as an important underlying topic in many degree programmes.
- The range of meals on offer will be made more sustainable wherever possible (taking into account current contracts). In addition to a reduction in meat consumption as a primary objective, vegetarian and vegan alternatives are being improved and the importance of sustainable management (e.g. avoiding plastic waste) is being increased.
- In order to increase sustainability in procurement and infrastructure, greater focus is placed on the underlying

value chain and therefore environmental and social compatibility when selecting products. Other important aspects are durability and energy efficiency (e.g. for refrigerators in laboratories). To this end, concepts are being developed that also need to focus on the cost efficiency of procurements. Accordingly, it is necessary to reduce new purchases, e.g. of paper and IT equipment, and to optimise procurement in order to reduce the material usage and material expenses.

The sustainability initiatives and measures are accompanied by a systematic communication strategy – both within the University and publicly.

Comprehensive and detailed concepts are required for the development, implementation and evaluation of these measures. In particular, these are incentive, regulation and evaluation concepts to achieve the goal of reducing emissions, acting more sustainably and maintaining the University's competitiveness. These concepts are academically sound and data-based.

The creation of such concepts requires participatory processes involving the *Sustainability Office, the Sustainability Advisory Board and Facility and Resources Management.* They require the creation of valid databases and an evaluation methodology in order to be able to regularly and systematically review interim targets.

### 9. Quality Assurance

The highest quality in research, teaching and administration is the primary objective of the University of Vienna. The reflection and agreement on what constitutes quality in these areas, self-assessment of one's own performance, and continuously striving for improvement are established practice in research, teaching and administration. Quality assurance is the task of all institutions of the University and all members of the University in their respective areas of responsibility. Together we are pursuing the goal of achieving the best possible quality in research, teaching and administration, solving academic questions or being successful in international competition while not being content with average performance levels. This quality culture forms the backbone of quality assurance at the University of Vienna. The specific quality assurance instruments and processes particularly aim to strengthen this quality culture and contribute to its further development.

Quality assurance at the University of Vienna pursues the objective of making its continual orientation towards quality and international standards a practical reality. In a comprehensive sense, quality assurance elements are integrated or need to be integrated in many areas: the appraisal of research achievements (see chapter 1: Research and Career Development of Early Stage Researchers), personnel-related decisions, particularly professorial appointment procedures and the tenure track process (see chapter 5: Employees), curriculum development and teaching processes (see chapter 2: Studying and Teaching), and the continuous improvement of service quality (see chapter 7: Infrastructure). Quality assurance-related findings are included in decision-making and control processes. In line with the quality culture, the responsibility for quality is distributed over various levels and a series of bodies, boards and stakeholders. Assuming responsibility at each of these levels and the constructive cooperation of everyone involved are essential for the quality assurance system. The shared responsibility for quality means it is possible to pay attention to the specific requirements of the different disciplines and subjects and puts this responsibility in the hands of competent people. Accordingly, procedures and instruments of quality assurance are designed so that specific conditions and requirements of different subjects are taken into consideration. The University of Vienna continues to attach much importance to crucial input from outside, such as from international experts in scientific advisory boards, and with its regular examination of internal quality assurance processes. Cooperation with the Austrian Agency for Research Integrity (OeAWI) will be continued.

### FURTHER DEVELOPMENT OF QUALITY ASSURANCE MEASURES/QUALITY AUDIT

EVALUATION OF THE ORGANISATIONAL UNITS

The quality assurance system of the University of Vienna is regularly audited externally, most recently by the Swiss Accreditation Council in 2022. The certification was awarded unconditionally and confirmed that the quality assurance system of the University of Vienna meets the requirements as stipulated in the 2002 Universities Act and the Austrian act on quality assurance in higher education (Hochschul-Qualitätssicherungsgesetz, HS-QSG).

The efficiency of the processes and procedures was also examined and confirmed in the self-selected focus topics of the quality audit, i.e. quality assurance in professorial appointment procedures, in doctoral studies and doctoral schools, as well as in continuing education. The recommendations of the quality audit experts, international developments in the field of quality assurance as well as recommendations of the Scientific Advisory Board of the University of Vienna are taken into account for the further development of the quality assurance system (processes and instruments). All organisational units (faculties/centres and service units) are evaluated at regular intervals in a seven-year cycle. In this process, the performances of the organisational units are subjected to a peer review process in several stages. Within the framework of a comprehensive concept, focus topics of the evaluation are determined in advance jointly by the Rectorate and the head(s) of the organisational unit to be evaluated. Based on the results of the evaluation, an implementation discussion is held between the Rectorate and the head(s) of the organisational unit where the results of the evaluation are discussed and specific measures are agreed. The agreed implementation measures and the achievement of objectives are monitored as part of the target agreements between the Rectorate and the faculty/centre or service unit.

# HIGH-QUALITY PERSONAL EVALUATION PROCEDURES

The performance of a university builds especially on motivated and qualified academic staff at all levels. Tenure track professorships and university professorships in particular play a major role here. Here the most important goals at all academic career levels are transparent, efficient and quality-assured procedures and the potential of the University of Vienna to recruit, promote and keep the best academics in its international competition with other establishments (see chapter 5: Employees).

### QUALITY ASSURANCE IN STUDYING AND TEACHING

The competence, motivation and commitment of teachers and students are fundamental to the quality of study and teaching. These are supported by the most efficient and effective organisation of studies and teaching possible, as well as by targeted and continuously further developed advisory and qualification services.

Quality assurance in studies and teaching is also achieved through a bundle of specific measures, such as regular evaluations of courses, surveys of students and graduates, and tracking of graduates entering the labour market in cooperation with Statistics Austria. Specific surveys on individual services support the further development of the available degree programmes and the curricula, the planning and organisation of teaching as well as different forms of teaching. The time span ranges over the entire student life cycle, from the introductory and orientation period to graduation and postgraduate education. The findings are incorporated into the further development of the degree programmes. Special attention is paid to the further development of quality assurance in the area of teaching (e.g. implementation of the course evaluation 'Online with student attendance', standards of (digital) examinations; topics related to study feasibility) (see chapter 2: Studying and Teaching).

### QUALITY ASSURANCE IN RESEARCH AND IN THE PROMOTION OF EARLY STAGE RESEARCHERS

Quality assurance in research extends beyond the evaluation of the organisational units. One focus is on the further development of cross-faculty research specialisations and strategic priorities. It is necessary to continue discussing the question of how impact is defined in more detail, also with a view to social impact (see chapter 1: Research and Career Development of Early Stage Researchers). Measures to enhance the impact and visibility of research results are accompanied by quality assurance measures.

The quality of the promotion of early stage researchers is directly related to the quality of research, which is why the support and integration of early stage researchers in faculties, centres, departments and working groups is fundamental. Quality assurance in doctoral programmes is ongoing and is ensured by measures such as the admission and the public presentation at the faculty, the progress reports, on to the completion of the doctoral thesis, typically with external reviews and the public defence. Periodic surveys of doctoral candidates are used to systematically identify potential for improvement and derive implementation measures. In addition, quality assurance of doctoral schools will be further developed and a focus will be placed on quality assurance in the area of postdoctoral researchers (see chapter 1: Research and Career Development of Early Stage Researchers). 10. Key Research Areas of the Faculties and Subject Dedication of Professorships

![](_page_105_Picture_1.jpeg)

### 10.1.1 OBJECTIVES

In the 21st century, religious beliefs represent essential motives for actions in a society that is becoming increasingly globalised. Understanding religious dynamics and their transformations is thus decisive for critical insights into the way modern societies are functioning. The Faculty of Catholic Theology essentially contributes to such an understanding by taking interdisciplinary and global perspectives in the area of research on religion, which encompasses aspects of theology as well as of the study of religions, ethics and aesthetics. This is reflected in the participation of academics from all continents.

In cooperation with the Faculty of Protestant Theology and the Department of Islamic-Theological Studies as well as other departments of the University of Vienna, it examines the role of religion with regard to the origins of, and coping with, social crises and challenges. The exchange with secular positions is of particular importance in this respect, as is ecumenical, Christian-Judaic and interreligious dialogue, whose hermeneutic, discursive and historical bases are critically reflected on in an academic way.

As far as the transfer of knowledge is concerned, the Faculty focuses on the following fields in particular:

- interreligious dialogue
- intensive contribution to the media relations at the University of Vienna
- · activities in teacher education (education and training)
- adult education in religion
- training of decision makers in the global South, Eastern Europe and Austria
- advisory activities (experts in Austrian and international bodies, academic input into church-related development processes).

### 10.1.2 KEY RESEARCH AREAS

The Faculty of Catholic Theology focuses on the following key research areas:

#### INTERDISCIPLINARY RESEARCH ON RELIGION

Research on religion at the Faculty of Catholic Theology pursues an interdisciplinary orientation.

The Faculty essentially contributes to the pooling of expertise from different academic disciplines involved in research on religion at the University of Vienna, thus particularly enhancing the visibility of research on religion at the international level and highlighting its social relevance. This interaction of different disciplines of research on religion constitutes a unique feature by international comparison.

Interdisciplinary research on religion studies the question as to what extent religions have formed, and are being changed by, the narratives, horizons of meaning and of life, the values, aesthetics and institutions of society. In addition, it looks into the way in which religions, and particularly religions to be met locally in Vienna and Austria, respond to global challenges of our time, and how they can be understood in the context of historical developments. This is particularly reflected in the loss of traditions and identity, debates on diversity and particularly gender, climate change, limited ecological resources, the dialectics of processes of enlightenment, migration and multiculturalism, religious pluralism, religious fundamentalism, urbanisation, digitalisation, new use of church buildings and diversification of the landscape of religious buildings, inequality and injustice, the religious justification of war etc.

It addresses exit strategies with regard to phenomena of global crisis as well as personal crises related to the meaning of life, and their consequences for ethics, politics, education, law and aesthetics. For instance, transformative processes in the religious cultures of modern-day Austria are studied, e.g. in the context of migrant groups and in educational and school settings, as well as in fields of action of religious communities.

Specific attention is paid to the transformation of the question of God and of religious motives, which has become apparent in art, in contemporary literature and in religious practice, not least with regard to its potential for examining current social developments. Additional emphasis is laid on the transformation of Christianity's self-understanding from its contact with Judaism and Islam, the world of millenarian and apocalyptic beliefs, new and alternative religious developments, as well as the hermeneutics of religious texts and practices in their normative, ethical, aesthetic and legal implications.

### CATHOLIC THEOLOGY AND CATHOLICITY IN CONTEMPORARY DISCOURSES

The Catholic Church has been the largest institutionalised religious community in the world up to the present day. This is also reflected at the Faculty of Catholic Theology of the University of Vienna, where students and teachers from all continents are pursuing academic activities. Many decision makers in the global South have been educated at the Faculty of Catholic Theology. In addition, students of Teacher Education and pastoral staff obtain their specific qualifications here.

The Faculty contributes its hermeneutics and methodology in order to elucidate - in its wide range of disciplines - the fundamentals of a Catholicity of global reach. For this purpose, it first of all faces the question of how to conceive of human beings, the world and history against the horizon of the question of God. It also critically reflects on the influence of Catholicity on global society and politics and studies their biblical, historical, theological, philosophical and legal foundations, as well as their aesthetic, institutional and practical expressions. They are analysed with regard to their effects on modernity's struggle to achieve human autonomy and respect for others. However, social developments are also critically appraised and discussed. This key research area is reflected both in the research of the individual disciplines and in the wide range of subjects taught at the Faculty. Its interdisciplinary diversity offers numerous connections to other faculties in order to study the essential contribution of Christianity to the historical and contemporary forms of occidental concepts, ideas and institutions.

The ecumenical perspective plays an important role in this regard. The Faculty can look back on a long tradition of academic approaches particularly to the Eastern Churches. Establishing a bachelor's and master's programme in Orthodox Religious Education has been a unique step in Western Europe, from which the interdenominational dialogue in Austria, as well as all over Europe, will directly benefit.

The considerable rise in the number of Orthodox Christians in Austria, resulting from migration, is taken into account in the subjects of teaching and research in order to enable critical academic expertise in the area of Orthodoxy. This expertise encompasses not only the area of Orthodox theology and religious education but the entire field of Eastern Church studies, i.e. including Oriental and Catholic Eastern Churches (particularly from a historical theological perspective). With regard to the war against Ukraine, peace ethics is another focal theme of topical relevance.
#### ETHICAL CHALLENGES AND EDUCATION IN GLOBAL SOCIETY

The Faculty examines numerous ethical questions in the areas of bioethics (climate crisis, medical ethics, health care), technology and ethics (artificial intelligence and robotics, modern medical and media technologies) as well as social ethics (migration and poverty, gender equality, political ethics). Intercultural ethics constitutes a further all-embracing area.

Since 1990 the Faculty has been part of the European Values Study Group and meanwhile has, by establishing interdisciplinary cooperation, become an outstanding place of interdisciplinary research on human values which is unique in its kind at the international level, as it combines empirical and hermeneutic disciplines.

Based on an anthropology that is conveyed against a Christian and generally religious background, the research area of ethics – with its expertise in the disciplines of philosophy, social and religious studies, as well as social and theological ethics – provides considerable input to the academic reflection on the major social challenges of our time. By contributing interdisciplinary perspectives and methodologies, the Faculty fosters the discussion of ethical problems in society that require expert knowledge, ethical know-how and awareness of diversity in society, and contributes to a sustainable resolution of social challenges.

Its profile in this context is characterised by a sensitive approach to questions of religion and spirituality, as well as to the question as to what makes us human. Interculturality and interreligiousness are of key relevance here and will continue to be focal topics.

# 10.1.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Christian Philosophy
- Church History
- Dogmatics
- Eastern Christian Studies
- Ecclesiastical Law and Law of Religion
- Fundamental Theology
- Liturgical Studies and Sacramental Theology
- Moral Theology
- New Testament Studies
- Old Testament Studies
- Pastoral Theology
- Religious Education and Catechetics (joint appointment with the Centre for Teacher Education)
- Social Ethics
- Study of Religions
- Theology of Spirituality

# 10.1.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Philosophy of Religion and Philosophical Anthropology *Time of appointment:* following vacancy of the Professorship of Christian Philosophy (presumably as of 1 October 2025)

#### Subject dedication of professorship:

• Religious Education and Catechetics *Time of appointment:* following vacancy of the Professorship of Religious Education and Catechetics (presumably as of 1 October 2027)

#### Subject dedication of professorship:

- Church History
  - *Time of appointment:* following vacancy of the Professorship of Church History (presumably as of 1 October 2028)

#### Subject dedication of professorship:

• Liturgical Studies and Sacramental Theology *Time of appointment:* following vacancy of the Professorship of Liturgical Studies and Sacramental Theology (presumably as of 1 October 2030)

#### Subject dedication of professorship:

 Moral Theology
 *Time of appointment:* following vacancy of the Professorship
 of Moral Theology (presumably as of 1 October 2030)

#### Subject dedication of professorship:

Pastoral Theology
 *Time of appointment:* following vacancy of the Professorship of Pastoral Theology (presumably as of 1 October 2030)

As things stand, it is planned to advertise the following tenure track positions in particular:

- Theories of Religion
- Intercultural Philosophy of Religion

### 10.2.1 OBJECTIVES

The Faculty of Protestant Theology at the University of Vienna is the only research institution on Protestant theology at the university level in Austria and therefore comprises the entire range of subjects of Protestant theology (Old Testament, New Testament, church history, systematic theology, practical theology, religious education and study of religions). According to the Protestant view, theology pursues a critical approach: It has, in its present form, been influenced by the developments of the humanities in the course of the modern period, and is subject to the general methodological prerequisites and procedures of academic research. The individual sub-disciplines of theology are closely linked with related disciplines such as ancient oriental studies, Egyptology, archaeology, education, Byzantine studies, historical studies, Islamic studies, Jewish studies, Coptic studies, history of art, cultural anthropology, literature studies, philology, philosophy, psychology, law, sociology and other disciplines, and their procedures are developed in exchanges with these disciplines. The Faculty of Protestant Theology is continually intensifying this academic cooperation and is also integrated into non-university networks in and around Vienna, in Austria as well as on an international level.

The researchers and teachers at the Faculty advocate an open culture of academic freedom and, through its activities within as well as outside the university, endeavour to counteract new tendencies of hostility towards academic approaches in society and to prevent religious fundamentalism. At present, one of the key tasks of academic Protestant theology is to explore and communicate knowledge of Christian traditions in society as well as the corresponding educational processes while critically appraising problematic tendencies of its own Christian heritage in the past as well as the present. Since Christianity and other religions continue to be of great relevance for society not only in Austria, in spite of hypotheses in favour of secularisation, the Faculty of Protestant Theology contributes to critical academic research into topics related to religion (such as research on antisemitism, theological research on religion and violence, religion and Christian mission/colonialism, religion and personal life organisation, dialogue among religions, challenges brought about by migration, medical ethics, environmental ethics/climate crisis, poverty and social issues).

The Faculty thus makes a fundamental contribution to the social discourse on religious and ethical related areas from a Protestant perspective.

Its research strategies are aimed at:

- advancing a focussed research profile in a way that enables the enhancement of the existing key areas at the Faculty and the support of the strategic orientation of the University through the resources and structures of the Faculty;
- conducting high-quality research to increase the international visibility of the University of Vienna and the attractiveness of the Faculty;
- maintaining the Protestant academic tradition which is fundamental for the Faculty – of exchange with other university disciplines in Austria, with a view to its public impact;
- keeping the degree programme in Protestant Theology in the individual curricula attractive for different target groups (in addition to future pastors and teachers of religion) through the unity of research and teaching, and integrating it into interdisciplinary teaching;
- enhancing the cooperation with the Faculty of Catholic Theology, the Department of Islamic-Theological Studies (including Islamic religious education), as well as with the Centre for Teacher Education, and furthering the

University of Vienna as an internationally visible and attractive location for exploring the ecumenical and interreligious dimensions of theology and research on religion.

The Faculty strives to increase expertise among the individual academic disciplines involved in research on religion at the University of Vienna.

The academics at the Faculty are also involved in the digital humanities (by means of digital edition projects and online journals) and in the discourse on the digital transformation of society. The Faculty expressly backs the endeavours of the University to pursue a proactive climate policy.

# 10.2.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The Faculty focuses its research strengths on two areas: sources of Christianity, and religion and theology in a pluralistic society, expressed in a total of four key research areas. The definition of these thematic areas is based on recent research projects which highlight the academic relevance and recognition of the researchers at the Faculty and reflect their integration in international networks. Here, fundamental research is pursued, and social relevance is demonstrated.

The thematic area of sources of Christianity comprises, based on methodological reflection, the study of the Bible and other sources of Christianity in their specific historical contexts, as well as of their interpretation and reception history, as a fundamental element of how European culture understands itself and underpins its own identity. One goal of this thematic area is – in accordance with Protestant academic tradition – to understand Christianity as a religion that is rooted in history, through researching its origin, beginnings and developments, paralleled by a critical examination of tendencies towards Biblicism and fundamentalism, and to investigate the abuse of the Bible and of religion for non-religious purposes during 2000 years of Christian history.

The thematic area of religion and theology in a pluralistic society includes the study and analysis of, as well as critical reflection on, religion and theology in modern society, at the interface of internal and external perspectives. The focus of this thematic area is on increasing expertise in religious analysis and on intensifying the current social discourse by conducting studies to this end, as well as on a critical reflection of the relevance of Church, Christianity and religion in culture and society of the modern period.

# INVESTIGATION OF THE BIBLICAL WRITINGS (SOURCES OF CHRISTIANITY)

The biblical writings constitute the main source of Christianity and are amongst the central documents of Western cultural and intellectual history. The historical-critical and literary study of the Old and New Testament, as well as the progress of the history of their interpretation and reception are of great significance for Protestant theology.

### INVESTIGATION OF THE SOURCES OF THE HISTORY OF CHRISTIANITY (SOURCES OF CHRISTIANITY)

In addition to the Bible, a great variety of other sources also confirm the process of Christian "inculturation" over the course of centuries. In order to understand Christianity as a religion with a historical dimension, the historical-critical and literary study of these sources, as well as the progress of the history of their interpretation and reception, are of key relevance for Protestant theology. The focus is particularly on sources from the first six centuries CE, on the history of Protestantism in Austria and South-Eastern Europe including its international interrelations, as well as on Protestant thinkers of the modern period.

# PERCEPTION AND COMMUNICATION OF RELIGION IN A PLURALISTIC SOCIETY (RELIGION AND THEOLOGY IN A PLURALISTIC SOCIETY)

In the present day, the complex phenomenon of religion, as well as religious education processes, can only be appropriately studied and analysed by combining different methodological approaches that reflect the contrast between an internal theological perspective and external perspectives (study of religions, psychology of religion, sociology of religion, as well as philosophy of religion, education and cognitive science). Protestant theology thus faces two challenges that need to be brought into the discourse together: From the internal perspective, the processes of communicating the Gospel on the one hand, and the practices of contemporary religious cultures on the other, are analysed and critiqued on the basis of Protestant theology. From the external perspective, religions are presented descriptively and empirically, and analysed and critiqued in the context of modern society. The focus is particularly on studying international religious movements in Protestantism, which have – due to mobility and migration – also reached Austrian society, as well as on reflecting on interdenominational and interreligious dialogue in the European context.

# THEOLOGY AND ETHICS IN ACADEMIC DISCOURSE (RELIGION AND THEOLOGY IN A PLURALISTIC SOCIETY)

Concepts of the nature of humanity and ethics are strongly influenced by religious ideas and traditions, which need to be reflected on in a critical way. Under the conditions of modern pluralism, the need of both church and society for an ethical discourse is increasing, and calls for ethical reflection on the part of theology and other disciplines. Here the focus is on questions of anthropology, ethical education in schools, interreligious medical and nursing ethics, pastoral care as well as the study of diaconal studies. We are therefore continuing our cooperation, as equal partners, with the Faculty of Catholic Theology, the Faculty of Law and the Medical University of Vienna in the areas of ethics and law in medicine.

# 10.2.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets.

The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Church History
- New Testament Studies
- Old Testament
- Old Testament Studies
- · Practical Theology
- Reformed Theology
  [Systematic Theology: Reformed Confession]
- Religious Education
- Study of Religions
- · Systematic Theology: Lutheran Confession

# 10.2.4. SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

 Religious Studies
 *Time of appointment:* following vacancy of the Professorship of Study of Religions (presumably as of 1 October 2024)

#### Subject dedication of professorship:

 Practical Theology
 *Time of appointment:* following vacancy of the Professorship
 of Practical Theology (presumably as of 1 October 2024)

#### Subject dedication of professorship:

 Reformed Theology (Systematic Theology: Reformed Confession)
 *Time of appointment:* following vacancy of the Professorship of Reformed Theology (presumably as of 1 October 2025)

#### Subject dedication of professorship:

 Religious Education
 *Time of appointment:* following vacancy of the Professorship of Religious Education (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Systematic Theology: Lutheran Confession *Time of appointment:* following vacancy of the Professorship of Systematic Theology: Lutheran Confession (presumably as of 1 October 2030)

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

• Medical Ethics and Diaconal Studies

# 10.3 Faculty of Law

#### 10.3.1. OBJECTIVES

The goal of the Faculty of Law at the University of Vienna is to consolidate and advance its position among leading law faculties at the international level, by conducting excellent basic research activities. The focus is on topics related to the great social challenges of our time and those to be met in the future: for instance climate change, social justice, globalisation, gender equality, internationalisation of economy and law, migration, digitalisation and settlement of international conflicts.

To understand the present and shape the future it is essential, including and particularly in the area of law, to know the past. The study of the historical and philosophical basis of European legal culture is important for enabling an appraisal of the legal framework for current and future social developments. Law touches all areas of society and of the coexistence of human beings. The acquisition of all-encompassing competence spanning the entire field of law therefore continues to be one objective of research at the Faculty. Its research strategy is thus oriented towards a wide range of areas comprising national and international law in all its aspects. The individual modules of a legal system are interrelated.

The Faculty therefore pursues a pronounced intradisciplinary approach to research. In addition, it aims to further advance interdisciplinary research projects. In this context, cross-sectional topics with other disciplines in the humanities as well as social and natural sciences are relevant, in which complex legal questions arise, for instance in the areas of bioethics and biotechnology, sustainability and climate protection, artificial intelligence, health care, migration, integration and conflict resolution.

The Faculty continues its endeavours to intensify its research on cross-border, i.e. international and European, questions. Thanks to its successful cooperation with institutions outside Austria, international and European Union institutions (e.g. the European Law Institute), it has become an international top-level player in this area. The Faculty will continue and further develop this successful orientation.

The wide range of subjects taught at the Faculty of Law are specifically aimed at internationality, orientation towards basic research, and practical relevance. Research-led teaching will continue to be pursued in order to ensure that future law professionals will be able to take over social responsibility, to think outside the box of their own discipline, and to find solutions for the legal challenges of the present day and the future. Thus, teaching at the Faculty of Law is not only intended to ensure that students are prepared for future employment and training in the traditional legal professions, but also to give the students access to many different options of internationalisation and specialisation, based on a knowledge of the basis of legal history and legal philosophy.

The results of research at the Faculty of Law will essentially contribute to overcoming social and legislative challenges, including those of the future. This transfer of knowledge takes place at several levels, in line with the Third Mission strategy of the University of Vienna. In particular, it includes the cooperation with governments. For instance, academic results from the Faculty contribute stimuli for reform projects of Austrian and European legislators, and by enabling academic support and appraisal, contribute to establishing legal clarity and certainty, in the interest of citizens. In addition, an intensive transfer of knowledge is brought about through publications and presentations. The academics at the Faculty communicate legal insights to the media and interested members of the public, and take part in civic debates about legal matters.

# 10.3.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The Faculty of Law at the University of Vienna ranks among the leading European law faculties. It understands this position as entailing a duty to continue to conduct excellent research in a broad variety of fields as well as to teach a wide range of subjects. With regard to both research and teaching, the Faculty aims to ensure practical relevance, international impact and orientation towards basic research. As an academic institution of this size, the Faculty of Law needs to demonstrate comprehensive expertise in its research, and regards it as its commitment to society to guarantee academic preparation for future employment as well as training in the traditional legal professions. The Faculty will therefore maintain comprehensive expertise in all disciplines. With regard to its research strategy, this means that a wide range of research areas are covered, spanning the entire field of national and international law. All key research areas of the Faculty also require consistent close links between extensive fields of legal expertise.

The areas in which the Faculty conducts research are, to a certain extent, also determined by the legal system. A number of relevant research areas have already come into being on this basis; and in addition, the Faculty of course also includes recent legal developments in its research activities. Basic research and applicationoriented research are equally important to the Faculty, and closely connected with each other.

In its key research areas, the Faculty primarily considers European and international matters. The individual disciplines are also geared towards subjects of international relevance. Topical questions of a cross-border nature are being increasingly researched in cooperation with foreign, international or EU institutions (such as the European Law Institute).

Besides continuing and deepening its research activities across the entire field of law, the Faculty intends to build or use both interdisciplinary and intradisciplinary networks. The key research areas it has defined are described below.

# THE HISTORICAL AND PHILOSOPHICAL BASIS OF EUROPEAN LEGAL CULTURE

This key research area is covered by the fundamental subjects of law (legal philosophy, history of law, constitutional history, Roman law and ancient legal history, law of religion and law of culture) and aims to gain further insights into perspectives of future European legal developments. Particular attention is paid to aspects that can be understood as specific features of European legal culture in the context of European integration, which requires enhanced reflection and research on dimensions of legal culture in a wider European context. The instruments to meet this end, for instance, include comparisons across time (legal history) and space (comparative law) in which modern regulations and institutions as well as their specific historical conditions and developments are analysed and compared. This means reconstructing the legal principles in which the development of law and the modern European legal systems are rooted and examining their continuing potency. In this way, commonalities in the basic structures of European legal systems can be identified, across all fundamental subjects of law. The increased importance of the international context and the interaction between EU regulations and national law, as well as the increasing digitalisation of the law as well as legal decisions and lines of argument, also pose great challenges for legal methodology. The Faculty of Law at the University of Vienna has always attached great importance to methodological questions. Its methodological tradition will be continued - taking into account the new challenges and further developed through critical assessment.

#### DIGITAL ECONOMY - DIGITAL LAW

Since human interactions, assets and business transactions increasingly move from the real to the digital world, and as the digital and real worlds converge, responses on the part of the law are required. The legal system must be able to address emerging problems, guarantee legal certainty and a worthwhile life for the citizens in the digital future. Legal challenges that will determine the future concern the sharing economy, smart contracts, 3D printing, data economy, the Internet of Things, artificial intelligence and robotics, social media and personality rights, intellectual property law, crowdworking, cybercrime, new requirements for tax law, organisation of knowledge within a corporate entity, antitrust issues, and the completion of the Digital Single Market, which the European Commission has identified as a key priority. Meeting these challenges requires a fundamental examination of both present and future laws, taking into account European and international developments. In addition, digitalisation has effects on the structure of the law and the form in which it appears, which again influences the terms of legal discourse. All these aspects need to be researched, encompassing different subjects in an interdisciplinary way.

In the context of the key research area of digital economy - digital law, the Faculty of Law provides input to Austrian and European legislators, as well as international organisations, to enable the development of a legal framework for the digital economy. By means of the academic study of complex legal questions connected with digital developments, the Faculty of Law actively contributes to the establishment of a legal framework that encourages innovation and economic growth while protecting the rights and interests of individuals. Over the next few years, it will intensify its close cooperation with governments, international organisations, NGOs and other players in order to find solutions to the challenges brought about by the digital economy. In addition, international networks established through numerous contacts with institutions outside Austria, such as cooperation with the European Law Institute, will be used to enhance the influence of academic digital rights expertise on regulation activities.

# LAW IN MULTICULTURAL AND INTERCULTURAL CONTEXTS; LAW OF MIGRATION AND INTEGRATION

The increase of international migration and the resulting changes in society involve manifold challenges for the field of law across the entire legal system. Here, the first question to be addressed is: What instruments can the state use to control and direct migration in all its forms, from forced migration to labour migration, family migration and educational migration, while taking into account its obligations under international law, European law and fundamental rights? This gives rise to a variety of further problems regarding labour market regulations, migrants' access to the social security system and the educational system, their position in the housing market and their social integration. From the perspective of democracy policy it is equally important to examine the conditions under which migrants can, or should, acquire citizenship and what options for participations they have apart from naturalisation. Finally, it is necessary to analyse the effects of migration on a society with increasing pluralism on the one hand and rising cultural and religious conflicts on the other. This key research area studies these issues from the perspective of Austrian positive law as well as that of comparative law, legal history, legal philosophy and criminology.

# FUNDAMENTAL RIGHTS AND HUMAN RIGHTS FACING COMPLEX CHALLENGES

Fundamental rights and human rights have been defined as a specific research area but must by no means be regarded as an independent or separated area: They are rather a cross-sectional field that permeates all national, supranational and international legal systems. According to the premise that fundamental rights and human rights are to offer answers to topical questions, in the context of a dynamic evolutionary interpretation, the key questions of our time and their discussion in the relevant sub-disciplines regularly include aspects of fundamental rights and human rights. The academic study of these questions in the key research area of fundamental rights and human rights facing complex challenges comprises the following three large sub-areas:

Firstly, its research focuses on the analysis, justification and operationalisation of the concept of human rights as universal rights of all people: a notion which, however, tends to be questioned increasingly often, for instance with reference to specific cultural contexts or (supposed) imbalances of power in the context of continuing post-colonialism.

Secondly, its research addresses the legally binding nature of fundamental rights and human rights under changing general conditions. In the present day, power is more than state authority - it is also exerted by supranational bodies and influential private stakeholders at several levels and in overlapping areas; sometimes in a fragmented, sometimes in a coordinated, and sometimes in a mutually competitive way. Regulatory and prohibitive tendencies as well as surveillance on the part of the state have increased, but today it is often argued that the fundamental freedoms of certain groups need to be restricted in order to protect the human rights of others, and the state tends to cooperate with international organisations, supranational bodies and other states in this respect. There are enterprises that have reached a position of economic power that enables them to dictate their terms to staff, competitors and states alike. Search engines and social media have gathered enormous quantities of data that represent power in the form of knowledge, to which all of us are willing, though unofficial, contributors. Under these conditions, it is necessary for all legal disciplines to reconsider the issue of protecting fundamental and human rights. This leads to the question of a partial expansion of the legally binding nature of fundamental rights and human rights for private stakeholders as is apparent in the law of the European Union, as well as to the question of changing approaches to the role of states, for instance with regard to a shift from a defensive function towards an enhanced protective function for fundamental rights and human rights including in exterritorial dimensions (a recent example is the view on accountabilities in value chains).

Thirdly, research in this area studies the function of fundamental rights and human rights as yardsticks and guiding instruments with regard to topical challenges, which is, for instance, being explored in the context of strategic litigation. This includes, e.g. the areas of migration, climate change, criminal prosecution and execution of sentences, digitalisation and artificial intelligence, as well as economy and (social) inequality.

Finally, in addition to research and teaching, particular importance is attached to the transfer of knowledge – for instance, by means of expert meetings, public discussions and workshops – in order to contribute to the resolution of social challenges, in line with the Third Mission strategy of the University of Vienna.

#### ANTI-DISCRIMINATION LAW AND LEGAL GENDER STUDIES

Gender, ethnic origin, religion or worldview, age, sexual orientation and disability are characteristics that require particular attention and sustainable legal protection. Current research activities often focus on the interaction of several discriminatory factors and thus pursue a cross-sectional approach to anti-discrimination law. However, gender continues to be of special relevance as it is always visible, and has continued to have massive consequences. It is an aspect of power relationships rooted in tradition and socially institutionalised or reinforced in many ways all over the globe. A key task of legal gender studies is to contribute a critical analysis of this dimension of power, focusing on legal questions. This gives rise to the very fundamental question of how gender is established in law – for instance, in debates about approaches to further genders such as inter or diverse, in addition to male and female, in civil status matters, and their implementation in other legal areas.

Further challenges that have to be met include the following: In labour law, non-discrimination principles, positive interventions and provisions on gender-related employment protections are being discussed; in business law, quota regulations for supervisory board members are a topical issue; in criminal law, protection of sexual integrity is of key relevance; and in civil law, the focus is on gender-related aspects of domestic arrangements – in the context of co-habitation, marriage or a registered partnership. The doctrinal legal perspectives are elaborated and expanded by including aspects of legal history and legal philosophy. They can be useful, for instance, with regard to issues such as the admissibility of quotas in recruiting procedures or in politics, or the legal solutions to conflicts concerning the coexistence of peoples of different religious and cultural backgrounds, which often have strongly diverging views on gender relations.

#### SUSTAINABILITY AND LAW

In Austrian environmental law, the Faculty of Law is a pioneer in both research and teaching. Climate change, with its impact on the environment, the economy and society, forces the legal system to find new answers to problems – which have in fact been known for a long time – within a very short time and on a well-prepared, sound legal basis. The corresponding changes will be felt in almost every legal area and require answers to specific problems and, equally important, adaptations of the general legal instruments.

International law includes the study of which prerequisites for climate protection, as well as European strategies in this field, are being developed.

Public law will need to find out how these prerequisites are to be implemented in national law as far as legal competencies are concerned, and will have to resolve numerous individual problems: How can projects aimed at adaptation to climate change (e.g. expansion of hydropower and wind power, power lines or public transport) be reconciled with traditional environmental protection and landscape preservation? In what way can climate protection already be integrated into specialised planning and also be taken into account in traditional law on environmental facilities, for instance by further developing balancing-of-interests prerequisites for project approvals and public participation in administrative proceedings? The exploration of sustainability questions in public law also requires great expertise in business law. For instance, it is necessary to study in what way climate and environmental protection can be strengthened by means of instruments of business law, particularly state aid law and procurement procedures, and - in view of the social dimension - integrated into the provision of public services, and in what way a reliable system of sustainability certificates for products and services can work effectively.

Based on the framework governed by public law, measures under tax law are examined with regard to their guiding effect. Interventions through taxes have often turned out to be a better alternative than market regulation in the strict sense.

Since the European Commission has recognised enterprises and the capital market as important levers for meeting the goals of its European Green Deal, corporate law, company law and capital market law have, to an increasing extent, been characterised by sustainability aspects. New laws have been adopted in quick succession, with effects on almost all areas of private commercial law. They include, for instance, sustainability reporting, particularly in accordance with the Taxonomy Regulation as well as Environmental Social Governance (ESG), which is aimed at sustainable business management at many levels of company law, such as management board remuneration, duties of management and supervisory boards, 'supply chain accountability' of large enterprises for environmental and human rights standards along the entire value chain (see Commission proposal for a Corporate Sustainability Due Diligence Directive). Capital market law is involved, for instance, with regard to the certification of sustainable investment and sustainable investment advice, fair trading law is concerned with combating greenwashing, and antitrust law deals with sustainability agreements and their compatibility with the antitrust provisions under TFEU Article 101, para. 1. All in all, in the entire field of corporate law (in a broad sense), a paradigm shift towards sustainable corporate governance is apparent, which the Faculty needs to underpin at the academic level.

From the perspective of private law and comparative law, questions of liability (microplastic litigation, climate change litigation, general environmental liability of industrial facilities, liability questions connected with livestock farming, etc.) are predominant. Regarding civil procedure, the focus increasingly tends to be on the settlement of disputes related to climate change that are brought before courts with different jurisdictions.

Environmental criminal law safeguards the social compromise achieved in the above legal areas (e.g. regarding climate justice and intergenerational justice, use of environmental resources v. environmental protection) and thus essentially contributes to the preservation of the ecological basis for human life. It is an instrument that has been playing an increasingly important role at the European and international levels, and is developing towards a 'climate criminal law' in its own right.

As regards legal philosophy, the focus is on the challenges of climate justice and intergenerational justice from global and national perspectives. The topics to be examined include the renaissance of methods of civil disobedience in the context of climate activism, and to what extent these illegal forms of protest can – in view of the urgency of the problem – be regarded as legitimate in terms of legal ethics. In addition, questions of global justice and justice between national states against the background of migration due to climate change are studied. This also includes the question as to what extent the concept of the national state will be under pressure due to global challenges, and what national states will nevertheless still be able to achieve.

In digitalisation law, the questions treated include the resource-saving use of IT ('green IT') and the ecological impact of innovation in a legal-technological context (clouds, blockchain, particularly bitcoin).

All in all, this key research area thus aims to identify the relationships between sustainability and the environment, the business world and the social sphere, to analyse them from a legal perspective, to verify interdependencies and, where appropriate, point out options for action based on the results of research.

#### EUROPEANISATION OF CORPORATE, BUSINESS AND TAX LAW

The legal development in Europe has brought about a considerable need for adaptation especially in the area of corporate law, and particularly in company law, capital market law and competition law, intellectual property law, e-commerce law including the entire field of IT law, technology-related intellectual property law taking into account recent technological developments, as well as insolvency and restructuring law.

The Single Market goal of the European Union has led to the continuing harmonisation and unification of corporate law and business law, which creates special challenges for legal academia. This is true, in particular, with regard to the law governing listed companies, technology-affiliated sectors and antitrust law. After an initial wave of seminal decisions, the influence of the fundamental freedoms on company law is again taking centre stage.

The examples above illustrate both a continuous increase in the extent of regulation in corporate law and business law, and new levels of harmonisation at the level of EU law. This goes hand in hand with a Europeanisation of law as an academic discipline: The discourse here is increasingly dominated by comparative methods and the identification of best practice. In addition, input from law and economics, as well as principles-based regulations have become a focal point. The withdrawal of the United Kingdom from the EU has brought about an additional dynamic.

In spite of the pronounced Europeanisation of business law and corporate law, fiscal decisions continue to be within the scope of responsibility of the national states. However, in times of crisis, demands for a European fiscal union tend to appear, for instance in connection with the public debt crisis and the economic crisis resulting from the COVID-19 pandemic. For this reason, the question as to how a European fiscal union can actually be elaborated needs to be treated at an academic level. The answers to these questions are of key relevance for the further structure of the European economy.

Economic criminal law takes this development into account. The criminal law risk of international groups are a specific focus of this field of law.

# HEALTH AND MEDICAL LAW, BIOETHICS AND BIOTECHNOLOGY LAW

The issue of the provision of comprehensive health care – particularly following the COVID-19 pandemic – is not restricted to Austria, but is relevant to all countries of the European Union, and international developments must also be taken into account. Research in this area is thus a particularly good example of international and interdisciplinary cooperation. In addition, due to increased crossborder activity in the health care sector (for instance, in medical research, in the pharmaceutical market or with regard to organ donors and tissue transplants) a growing number of international and supranational legal regulations have been enacted, which require more detailed analysis.

On the one hand, this key research area covers the traditional areas of health law and medical law in an interdisciplinary way such as the organisation and funding (a point of discussion of increasing import) of the health care system, professional rights of health care staff, hospital law, informed consent, confidentiality and data protection, liability under civil and criminal law, law of pharmaceutical products and medical devices, legal end-of-life questions including advance decisions, rights of the dead, combating contagious diseases, and coercive measures in medical and care contexts.

On the other hand, it covers the challenges with which the legal system is confronted due to new medical technologies and digitalisation (e.g. reproductive medicine, genetic engineering, stem cell research, tissue engineering including research on models such as embryoids, personalised, data-based and regenerative medicine). These issues need to be investigated and taught appropriately from a legal point of view, in a multidisciplinary approach crossing the traditional boundaries of legal areas. Relevant aspects of legal ethics are also included, with particular regard to the demographic changes in society. In the context of this area, the researchers closely cooperate with stakeholders from the health care system and health policy, for instance, in the context of advisory bodies.

The Faculty's research activities are pursued in cooperation with the Medical University of Vienna, particularly at the Department for Ethics and Law in Medicine, a research platform spanning different faculties, and on the basis of the existing cooperation agreement between the University of Vienna and the Medical University of Vienna on collaboration in the areas of bioethics, medical ethics and medical law.

#### CODIFICATION OF PRIVATE LAW

Whereas the aim of the major private law codifications of the 19th century was to provide systematic private law legislation in a conclusive code of law, private law in the present day is characterised by pronounced fragmentation. The Austrian Civil Code (ABGB), which continues to be selectively amended, and in part reformed, has been complemented by numerous special acts, particularly in the area of consumer protection law. This evolution arose from the need to adapt private law to changes in the social and economic framework as well as to implement European legislation.

Today, private law has become multi-layered with regard to the place, origin and extent of regulation, as well as the time and historical situation in which individual acts of law or regulations were laid down.

In view of the complexity of present-day private law, a comprehensive recodification of the entire private law system does not seem to be a realistic option. The challenge is rather to ensure that the provisions of newly adopted acts are consistent with the existing legal framework, to preserve its systematic structure, enable its practical applicability and guarantee legal certainty. It has been a long-standing tradition of the Faculty of Law at the University of Vienna to provide expert consultancy services to the legislator in order to prepare comprehensive laws, to initiate legal reform, to answer legal questions arising during the elaboration of reform projects, to find practical solutions for implementation and to provide background on comparative law, legal history and European law. This key research area is interdisciplinary and can draw on international networks in the form of numerous contacts with institutions in other countries, as well as cooperation with the European Law Institute. Recent examples of input in this field include the reform of inheritance law, adult protection law, family law, loan contracts, law of civil code companies, consumer protection law and tort law.

# THE DYNAMICS OF NATIONAL AND INTERNATIONAL LAW ENFORCEMENT AND DISPUTE RESOLUTION

Globalisation has led to an increasing number of disputes with crossborder and other international elements. In response, this key research area focuses on the international dimension of litigation, the Europeanisation of procedural law, comparative procedural law, as well as the link between private international law and international civil procedure. Particular importance is given to alternative dispute resolution mechanisms, their historical development and their relevance in the international context. This key research area also integrates the historical development of conflict resolution mechanisms.

However, in the changing society of the present, the traditional mechanisms of law enforcement (through judicial proceedings, decisions and enforcement) have increasingly often turned out to be insufficient – and not only in the international context. On the one hand, conflict resolution by courts is often regarded, whether rightly or wrongly, as an expression of the current political power relations and not sufficiently oriented towards the individual situation of the parties concerned, which may lead to injustice. On the other hand,

### 10.3.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

in all but a few areas of society, judicial decisions have increasingly been deemed unsatisfactory and of limited constructive value with regard to future situations. This is one of the reasons why almost all areas of law have, in addition to traditional instruments of law enforcement, also established new procedures for the resolution of conflicts (alternative dispute resolution, diversion in criminal proceedings and conflict resolution in general, protection of collective interests).

These developments have had far-reaching effects on civil, administrative and criminal procedure. They have evidenced the need to find new strategies of law enforcement, which will allow reaching legally binding compromise in a way acceptable by society. Analysing the changes of recent years, identifying the risks and opportunities presented by new forms of conflict resolution, and monitoring these developments on a critical academic basis is one of the major challenges that the Faculty of Law will be tackling in the near future. For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Ancient Legal History and Roman Law
- Austrian and European Legal History
- Austrian and European Private Law
- Austrian and German Legal History
- Business Law
- Civil Law
- Civil Law
- Civil Law
- Civil Procedure
- Civil Procedure
- Commercial Law with Special Emphasis on Links with General Civil Law
- Company Law and Capital Market Law with Special Emphasis on Europeanisation
- Comparative Private Law and International Private Law
- Constitutional Law
- Criminal Law and Law of Criminal Procedure
- Criminal Law and Law of Criminal Procedure
- · Criminal Law, Law of Criminal Procedure and Criminology
- · Criminology and Criminalistics
- European and International Civil Procedure
- European Law
- Financial Law
- Financial Law
- Fundamental Rights and Human Rights
- General Private Law

# 10.3.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

#### • General Private Law

- Globalisation and Legal Pluralism
- History of Law
- Innovation and Public Law
- International Business Law
- International Tax Law
- Labour Law and Law of Social Security
- Labour Law and Law of Social Security
- Labour Law, Law of Social Security and European Business Law
- Law of State and Constitution, and Administrative Law
- Law of State and Constitution, and Administrative Law
- Legal Ethics and Legal Philosophy
- Legal Philosophy and Legal Gender Studies
- Legal Philosophy and Methodology of Legal Studies
- Medical Law
- Private Law, Private International Law and Comparative Law
- Public Law
- Roman Law (with Special Emphasis on Comparison of the Development of Private Law)
- Romanistic Foundations of European Private Laws
- Technology Law and Intellectual Property Law

# Administrative Law

PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

Public Law in the European Context

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

#### Subject dedication of professorship:

• Austrian and European Private Law *Time of appointment:* following vacancy of the Professorship of General Private Law (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Labour Law and Social Security Law *Time of appointment:* following vacancy of the Professorship of Labour Law and Law of Social Security (presumably as of 1 October 2025)

#### Subject dedication of professorship:

• Comparative Law and Private International Law *Time of appointment:* following vacancy of the Professorship of Comparative Private Law and Private International Law (presumably as of 1 October 2026)

#### Subject dedication of professorship:

• Public Law *Time of appointment:* following vacancy of the Professorship of Public Law (presumably as of 1 October 2026)

#### Subject dedication of professorship:

• Sustainable Business Law *Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2027)

#### Subject dedication of professorship:

• Criminal Law and Criminal Procedure Law in the European Economic and Financial Area *Time of appointment:* following vacancy of the Professorship of Criminal Law and Law of Criminal Procedure (presumably as of 1 October 2028)

#### Subject dedication of professorship:

 Legal Philosophy and Transformation *Time of appointment:* following vacancy of the Professorship of Legal Philosophy and Methodology of Legal Studies (presumably as of 1 July 2029)

### Subject dedication of professorship:

• Civil Procedure Law *Time of appointment:* following vacancy of the Professorship of Civil Procedure (presumably as of 1 October 2029)

#### Subject dedication of professorship:

• International Law

*Time of appointment:* following vacancy of the Professorship of International Law (presumably as of 1 October 2030)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

• Innovation and Law

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Austrian Legal and Constitutional History
- Criminology
- Public Law in the International Context

### 10.4.1 OBJECTIVES

The goals of the Faculty of Business, Economics and Statistics, in addition to accomplishing top achievements in research and teaching, also include the communication of knowledge to society.

Research at the Faculty comprises a wide range of themes in the areas of business administration, economics, statistics, finance, economic sociology and business law. It is based on the conviction that a productive exchange between theoretical and empirical approaches will bring about new insights. On the one hand, theory has to be systematically tested against reality, while, on the other, the results of empirical validation have to be integrated into the generation of theories. This orientation towards quantitative and analytical aspects is a key characteristic of the Faculty, which has met with positive feedback in the international academic community. This focus is also supported by cross-sectional areas, which are designed to establish methodological links between the traditional areas, particularly experimental economics, data science and operations research.

Teaching at the Faculty is research-oriented at all levels. It is aimed at encouraging students to first understand, and critically reflect on, the current state of the art so as to enable them to take the next step, i.e. apply findings in practice and to conduct their own research. The knowledge and mastery of academic methods influences one's thinking and is highly appreciated in various professional fields. Teaching thus also equips future managers in private business, administration and non-governmental organisations with good methodological tools.

#### 10.4.2 KEY RESEARCH AREAS

The Faculty has defined five key research areas, which combine the ideas and projects of different disciplines.

#### HUMAN BEHAVIOUR AND THE ECONOMY

This key research area focuses on human behaviour in economic decision-making. While models of business administration and economics have to be based on assumptions about human behaviour to enable forecasts, the task of experimental economics is to test these assumptions and models. Such a combination of theoretical and experimental approaches permits a realistic modelling of human decision-making behaviour.

Today, the results of this research provide the basis for application in almost all disciplines at the Faculty: They range from analyses of economic and regulation policies to behavioural finance and questions of business administration in, for instance, the areas of marketing, strategy, organisation and personnel, as well as economic sociology.

#### CHANGING MARKETS AND INSTITUTIONS

Transaction cost – i.e. the cost incurred in the exchange of goods and services in economic systems – is no less important than the cost incurred in the production of these goods and services.

The efficient coordination of transactions in markets and enterprises through institutional design continues to be a challenge for both governments and enterprises in the context of global competition. The digitalisation of economic processes has changed both the scale (big data) and the substance of economic transactions. Economic analyses and applications study the effects on the efficiency of imperfect competition and its control by governance structures with regard to property rights, and by contractual incentive systems.

#### CORPORATE STRATEGIES AND PROCESSES

In modern enterprises, the traditional separation of strategy development into market and environmental analysis on the one hand, and organisational development with regard to the design of internal corporate processes on the other, is about to disappear. It is being replaced by strategic management - a process in itself - which coordinates corporate organisation and value-added activities and orients them towards internationalisation and environmental conditions that are changing increasingly fast. In addition to strategic management as such, this is particularly relevant for technology and innovation management, as well as for supply chain and operations management and - due to the further advancement of digitalisation and availability of big data - also for the field of business analytics. However, input obviously comes from all other disciplines of business administration and several disciplines of economics as well, for instance industrial organisation, labour market economics and from interdisciplinary approaches such as cooperative business and sharing economy.

#### MANAGEMENT OF RESOURCES

Resources – natural, human, financial and informational resources – are the basic building blocks of any economic activity. Growth and development depend on the availability or scarcity of resources. Their asymmetric distribution and the possibility of their privatisation by economic actors bring about strategic behaviour. The management of resources aims at the efficient use of resources in economic systems, at both the social and corporate levels. Economic analyses and academic papers study the growth and development of regions, sustainable environmental and energy policies and management, production and logistics in the value chain, the design of education and training systems, as well as efficient information systems and their management.

#### DATA SCIENCE AND ANALYTICS

At a time where big data are available from almost all areas of society, and have become increasingly complex (high-dimensional data), it is more urgent and more important than ever to develop appropriate statistical methods and algorithms as well as the corresponding optimisation procedures. There is an obvious high demand for specialists with academic training in data science and analytics on the labour markets. This leads to challenges with regard to both application and up-to-date methodological developments in statistics (analysis of high-dimensional and heterogeneous data, modelling, model selection and inference), operations research (optimisation and modelling), as well as quantitative computational economics (business analytics, finance and applied econometrics). Their application plays a special role in the analysis of currency, securities and energy markets, banks and insurance funds, as well as other financial institutions, corporate finance, and also for instance, in logistics and operations management.

# 10.4.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Statistics
- Behavioural Economics with Applications in Austrian Economic Policy
- Business Administration Finance [Corporate Finance]
- Business Administration Personnel Management [International Personnel Management]
- Business Administration Production and Logistics with International Focus
- Business Administration Service Management/Financial Services
- Business Administration [Management Control]
- Business Administration [Organisation and Planning]
- Business Administration [Production and Operations Management]
- Business Administration [Strategic Management]
- Business Analytics
- Civil Law with Special Emphasis on Business Law [Civil Law and Business Law]
- Development Economics [Economics Development Economics]

- Economic Sociology
- Economics Applied Economics in the Area of Macroeconomics (Applied Macroeconomics) [Economics – Applied Macroeconomics]
- Economics Applied Economics in the Area of Microeconomics (Applied Microeconomics) [Economics – Applied Microeconomics]
- Economics Economic Policy
- Economics Public Finance
- Economics (Industrial Organisation, International Economics)
- Economics [Economics Macroeconomic Theory]
- Economics with a Microeconomic Orientation [Economics – Microeconomic Theory]
- Finance [Business Administration Financial Markets]
- Finance and Mathematics
- Financial Law with a Focus on Corporate Tax Law
- International Business
- Marketing
- Microeconomic Theory; Methods and Application to Specific Problems (e.g. Auctions, Foreign Trade, Governance, Regulation, Labour Market) [Economics – Microeconomic Methods and Applications]
- Quantitative Risk Management
- Statistics
- Statistics and Stochastic Optimisation
- Statistics with Applications, in Particular in Business Administration and Economics

# 10.4.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

### PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Business Administration Technology and Innovation Management
- Financial Accounting
- Macroeconomics
- Marketing
- Optimisation
- Organisation
- Production and Logistics

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

#### Subject dedication of professorship:

• Statistics and Econometrics *Time of appointment:* following vacancy of the Professorship of Statistics (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Private and Corporate Law (cooperation with the Faculty of Law with regard to advertising and recruitment) *Time of appointment:* following vacancy of the Professorship of Civil Law with Special Emphasis on Business Law (presumably as of 1 October 2025)

#### Subject dedication of professorship:

International Macroeconomics
 *Time of appointment:* following vacancy of the Professorship of Economics (presumably as of 1 October 2026)

#### Subject dedication of professorship:

• Finance *Time of appointment:* following vacancy of the Professorship of Finance (presumably as of 1 July 2027)

#### Subject dedication of professorship:

 Microeconomics: Theory and Applications
 *Time of appointment:* following vacancy of the Professorship
 of Microeconomic Theory; Methods and Application to
 Specific Problems (e.g. Auctions, Foreign Trade,
 Governance, Regulation, Labour Market)
 (presumably as of 1 October 2027)

#### Subject dedication of professorship:

 Applied Microeconomics
 *Time of appointment:* following vacancy of the Professorship
 of Economics with a Microeconomic Orientation
 (presumably as of 1 October 2027)

#### Subject dedication of professorship:

 Human Resources
 *Time of appointment:* following vacancy of the Professorship
 of Business Administration – Personnel Management
 (presumably as of 1 October 2028)

#### Subject dedication of professorship:

 Quantitative Macroeconomics
 *Time of appointment:* following vacancy of the Professorship
 of Economics – Applied Economics in the Area of
 Macroeconomics (Applied Macroeconomics)
 (presumably as of 1 October 2029)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

Service Management

#### Subject dedication of professorship:

• Accounting for Environmental, Social and Governance (ESG) Reporting

#### Subject dedication of professorship:

• Operations Research

# 10.5.1 OBJECTIVES

In the recent past, the academic discipline of computer science has seen very rapid advancements, and especially its impact and options for use have expanded dramatically. The topics and methods of computer science have meanwhile influenced virtually all other academic disciplines, and in addition, its applications have manifold effects on society and all spheres of life. This development of computer science - from an academic discipline originally characterised by its orientation towards technological engineering to a discipline covering a very wide range of methodological approaches, as well as numerous applications and effects - has opened up many new links and connections particularly in the context of the broad spectrum of subjects of the University of Vienna, which also encompass, for instance, the social sciences, humanities and human science. The (potential) impact of 'artificial intelligence' (AI) has a strong influence on virtually all areas of application of digital technologies. Computer science plays a leading role in algorithmic methodology and in the technologies on which AI is based.

The Faculty of Computer Science at the University of Vienna has, in recent years, specifically focused on identifying and utilising the potential connected with these developments. In particular, the Faculty has endeavoured to develop a topical profile, visibility and critical mass in four areas, i.e. in the key research areas of algorithms, data science, systems and human-centred computing. In order to also further the necessary close links between the rapid methodological and conceptual progress in the area of AI on the one hand and the application of AI in all academic areas of the University of Vienna on the other, the Faculty of Computer Science regards it as its responsibility to contribute its expertise as a point of call and as a partner for exchange and cooperation in all questions arising with regard to AI regarding research, teaching and the Third Mission at the University of Vienna. During the next development stage, it intends to continue pursuing this successful path. There needs to be a balance between basic research and applied research. Technology transfer activities contribute to the sustainable impact of research activities.

Strength in the discipline (and the resulting visibility) are key prerequisites for a further objective of the Faculty of Computer Science: building and advancing interdisciplinary cooperation in the context of the University of Vienna. By means of well-defined forms of cooperation with areas of application of digital technologies, the crucial components of computer science that are oriented towards basic research also provide essential input for tackling major social challenges of our time. Based on the existing strong points of the Faculty of Computer Science, in the next development stage the focus at the Faculty will be especially on the potential for enhancing interdisciplinary cooperation and research activities in three areas:

- with the biosciences and life sciences (based on expertise in the key research areas of algorithms and data science, for instance in the fields of bioinformatics, neuroinformatics and computational drug design);
- with business, economics and statistics (based on expertise in the key research areas of systems and data science, for instance in the areas of business informatics and security);
- with the social sciences and the humanities (based on expertise in the key research areas of human-centred computing and data science).

#### 10.5.2 KEY RESEARCH AREAS

#### ALGORITHMS

The key research area of algorithms focuses on the development, analysis and improvement of algorithms. It studies various types of questions, particularly common algorithmic questions regarding networks, which can often be modelled as graphs, as well as the algorithmic basis of machine learning and thus of AI. Questions regarding networks are of key significance in numerous areas of application, for instance in social networks, communication networks, which constitute the backbone of our digital society, or in cloud data centres and super computers, which can meanwhile comprise millions of processors within a system. In all areas, new algorithms are needed which meet high efficiency and scalability requirements: For instance, due to the popularity of data-centred applications (in the areas of health, business, social networking, etc., as well as, of course, AI), data traffic has seen an enormous increase, so that many networks will soon reach their capacity limits. Efficient use of energy and sustainability are also controlled at the level of algorithms and thus represent an additional important aspect of research.

Many issues concerning large networks require solutions to algorithmic problems on the basis of graphs. In this key research area, efficient graph algorithms are being developed, analysed theoretically and also assessed empirically. The research activities in this area also include dynamic, distributed and parallel as well as numerical algorithms. Further research activities closely related to this field, with important links to the key research area of data science at the Faculty, focus on questions concerning algorithmic components of AI (e.g. neural networks), as well as algorithms for the generation of knowledge from social networks. Graph-based abstractions also serve as the basis for algorithms and for programming future computer architectures, which are massively parallel on the one hand, but, for reasons of energy efficiency, also increasingly heterogeneous on the other. In task-based runtime systems, complex scalable and adaptive algorithms that are used as a basis for computationally intensive and data-intensive applications can be represented as dynamic graphs. These technologies play a key role for developing a new generation of parallel programming models.

#### DATA SCIENCE

Data science focuses on acquiring knowledge from data. Due to the digital transformation, methods of data science have meanwhile become necessary in almost all academic disciplines. In addition, data-driven research plays a key role in numerous academic fields: For instance, in the biosciences and life sciences or in pharmacy, as well as in the humanities and the social sciences, new insights have increasingly often been based on methods of data science. At the same time, questions from other academic areas have inspired the development of new data science methods. In its broadest interpretation, data science is an interdisciplinary research field with an inherent bridging function because an intensive cooperation between those developing new methods and those applying them is required. A wide range of interdisciplinary research activities in this area are being conducted at the University of Vienna. The Faculty of Computer Science pursues research regarding central methodological components of data science, and plays a leading role in the relevant interdisciplinary activities, where it contributes its expertise in computer science.

Since datasets are growing continuously and very rapidly, the use of computer science methods to generate knowledge from data is an indispensable cornerstone of data science research. The research topics in this field encompass the entire process of knowledge generation from data: database research techniques for efficient storage, representation, organisation and similarity search of very large volumes of data; data mining methods for detecting trends and patterns; machine learning methods and AI methods for forecasting correlations (interpretable machine learning and robust machine learning are of particular interest in this regard); visualisation methods for understanding data and models. Here, links with the algorithmic methodological components of computational science exist, where traditional ab-initio models are being increasingly supplemented by data-driven models, so that the use of machine learning methods has also become very important.

Data science is an emerging research area, since increasing amounts of data can be acquired and made available digitally in almost all areas of knowledge, and computing infrastructure has seen a rapid advancement over the past few decades. However, the constant further development and diversity of the computing infrastructure also requires a permanent advancement of algorithms and runtime systems, as well as of tools and software in order to meet the ambitious goals that have been set in data science. Close links with activities at the key research area of algorithms at the Faculty have therefore been established – for instance, with regard to robustness and scalability of numerical algorithms, methods for analysing neuronal data, text mining, and software or middleware.

#### SYSTEMS

This key research area of the Faculty is based on the observation that the real and the digital worlds will converge further in the future. In this context, the focus is primarily on systems that are needed in this process of transformation. The challenge here is to explore and develop methods and processes concerning knowledge in intelligent systems, as well as knowledge on intelligent systems, taking new approaches into account.

This results in research questions such as the following: How can systems be developed and modelled in line with a design-oriented approach in order to enable new architectures in a disruptive environment (sustainability)? How can domain-specific knowledge be formalised, and how can a representation thus become machineunderstandable (operationalisable, intelligent)? How can the behaviour of these intelligent systems be designed in a comprehensible way (explainability)? How can security and privacy be ensured in this context (secure systems)? How can we meet the challenge of the constantly increasing distribution of information systems (distributed systems)?

The complexity and diversity of the topics arising due to digitalisation in general and AI in particular is addressed, on the one hand, by establishing the corresponding research approaches and, on the other, by design-oriented approaches that also take disruptive technologies into account. The above research questions are of key relevance to the core of computer science, and they are an essential component of modern systems-oriented and design-oriented business informatics at the Faculty of Computer Science.

This key research area of the Faculty comprises research on, and the development of, approaches, methods and tools for areas such as cloud computing, flexible and distributed processes, parallel computing, conceptual modelling, intelligent and agile agents, DevOps, semantic technologies, the Internet of the future, secure and service-oriented systems, cooperative systems, IT infrastructure for Industry 4.0, cyber-physical systems (CPS), the Internet of Things and information security management systems, as well as blockchain systems.

#### HUMAN-CENTERED COMPUTING

The key research area of human-centred computing puts special emphasis on human beings and their diverse needs and aspirations. It encompasses both the theoretical and the experimental development of human-computer systems, interfaces, models and interactive processes. Human-centred computing is an inherently interdisciplinary area with an impact on many other disciplines, particularly on the social sciences and on the humanities, and, in the context of digital humanism, it is also concerned with political, ethical and aesthetic questions of digitalisation. In view of the rapid technological progress in the area of AI in the present day, this research area is significantly gaining in relevance as a particularly important complement to the research activities in the other three key research areas at the Faculty. The links to (school) education also play a special role due to the impact of AI on the fields of education and didactics.

The corresponding key research area at the Faculty of Computer Science focuses on the computer science and informatics aspects of human-centred computing and the resulting links to other disciplines. At the centre of research activities lies the vision that humancentred computing can contribute to improving quality of life, social inclusion, effectiveness, as well as personal fulfilment and purpose at the individual and the social levels, and to reducing the digital gap. Members of the Faculty study the human-centred design of human-computer interfaces, assistive communication devices, brain-computer interfaces, technologies and systems for the inclusion and empowerment of people with impairments, the improvement of user experience to increase the acceptance of applications, and questions of the values-based use and sustainable advancement of information and communications technology.

In addition to the focus on designing interfaces between human beings and computers, the Faculty of Computer Science is engaged in several initiatives, including interdisciplinary initiatives, to examine technologies that aim to assist human beings in regard to learning, decision-making, working and improving their quality of life in the context of digital change. This takes place, for instance, by means of comprehensible explanations and visualisations of AI models, empirical studies of factors influencing the use of information technologies, by expanding and improving human learning processes through digitally supported access, as well as by means of digital technologies supporting communication and cooperation.

Important links have been established between the key research areas of human-centred computing and data science with regard to technology-enhanced learning and data visualisations that are easy to grasp for human beings. The key research areas of systems

# 10.5.3. PROFESSORSHIPS AS OF 1 OCTOBER 2023

and of human-centred computing are inherently linked through the research approach of design thinking, aimed at developing human-centred systems and interfaces. In addition, security and the protection of privacy are further essential characteristics of human-centred computing, and thus closely linked with the security concerns of the key research area of systems regarding usable security. Further important links have been established between the key research area of human-centred computing and the research area of computer science education (didactics of computer science), which focuses on the discipline of computer science in educational contexts, particularly by means of physical computing, gaming education and technology-enhanced learning. For a better overview, all professorships existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- (Scientific) Visualisation
- Applied Computer Science
- Applied Computer Science (joint appointment with the Centre for Teacher Education)
- Biochemical Modelling (joint appointment with the Faculty of Chemistry)
- Bioinformatics (20 %; 80 % at the Max Perutz Labs)
- Business Informatics
- Business Informatics
- Computational Technologies and Applications
- Computer Science
- Computer Science (Cooperative Systems)
- Data Mining
- Didactics of Computer Science (joint appointment with the Centre for Teacher Education)
- Digital Philology (joint appointment with the Faculty of Philological and Cultural Studies)
  - Neuroinformatics
- Scientific Computing Parallel and Distributed Systems
- Security and Privacy
- Software Architectures

# 10.5.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

#### PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Communication Technologies
- Computer Science (Process-Oriented Information Systems)

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

#### Subject dedication of professorship:

• Responsible Computing *Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Computer Science *Time of appointment:* following vacancy of the Professorship of Computer Science (presumably as of 1 October 2027)

#### Subject dedication of professorship:

• Business Informatics

# *Time of appointment:* following vacancy of the Professorship of Business Informatics (presumably as of 1 October 2028)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

• Artificial Intelligence in Bioinformatics

#### Subject dedication of professorship:

• Artificial Intelligence

#### Subject dedication of professorship:

• Future Computing Concepts

#### Subject dedication of professorship:

• Computational Medicine (joint appointment with the Medical University of Vienna or the Faculty of Mathematics depending on the advertising result)

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track position in particular:

Human-Computer Interaction

# 10.6.1 OBJECTIVES

The Faculty of Historical and Cultural Studies aims to investigate politics, economy, society and culture in their historical contexts and to critically analyse cultures of remembrance. Research undertaken by its members contributes fundamentally to a more nuanced understanding of the past and the present as a precondition for acting responsibly in both social and individual contexts to shape our future. The scholarly insights gained by faculty members are communicated to the wider public and thus provide expertise (knowledge and orientation) in many fields. These contributions to wider societal discourses are in line with a broad and participatory concept of education. Education of future staff as well as public outreach collaborations involve schools, museums and exhibitions, libraries, archives, monument preservation, cultural institutions, NGOs as well as media (print, web, social media, radio, TV and films).

Within the academic structure, this approach integrates academic research and subject didactics on the one hand, and – with regard to the education of teachers – in-depth cooperation with the Centre for Teacher Education as well as the Faculty of Philosophy and Education on the other. In addition, the Faculty cooperates closely with public institutions outside the university such as museums and the Austrian Academy of Sciences.

The Faculty of Historical and Cultural Studies is one of the largest and most diverse of its type and thus fulfils the expectations for a large university in a capital city. Its research and teaching cover all periods of human history. The Faculty's unique profile corresponds with the specific position of the University of Vienna in the Danube region – with its special place in the past, present and future of Europe and the world – and responds to current trends in historical and cultural studies. These seek to view the world as a complex system which cannot be understood from the sole perspective of individual disciplines. Research and teaching at the Faculty thus draw on manifold collaborations with other faculties of the University of Vienna. the Faculty of Philological and Cultural Studies, the Faculty of Philosophy and Education, the Faculty of Social Sciences, the Faculty of Life Sciences, the Faculty of Law, the Faculty of Business, Economics and Statistics, as well as the Faculties of Theology.

In response to the growing importance of digital approaches to the generation and transfer of knowledge, the focus on digital humanities services will be intensified to enable the digital processing and communication of knowledge. Digital processing and archiving of historical collections will provide access to sources of research and facilitate long-term preservation. The relevance of digital competences is also addressed in teaching. In addition, the Faculty systematically supports research in the field of AI and game studies, including its game studies laboratory (GameLab).

# 10.6.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The Faculty of Historical and Cultural Studies brings together a large variety of disciplines and is characterised by an equally wide range of research subjects and methods: Textual and visual sources as well as material culture from all periods, audio(-visual) media, and archaeological as well as ethnographic sources are the foundation for a wide range of research into belief systems, forms of cultural representation and agency, and the ways they have changed over the course of history.

In an increasingly inter- and transdisciplinary research environment, cooperation across different disciplines has become more and more important. In order to further promote collaboration across disciplines and research fields, a Faculty Centre for Transdisciplinary Historical-Cultural Studies has been established. The manifold interand transdisciplinary research activities of the members of the Faculty of Historical and Cultural Studies contribute to the cross-faculty research specialisations and strategic priorities of the University, as well as to key research areas and thematic areas at the Faculty. Its members foster networks both within the Faculty and beyond, and stimulate new forms of cooperation and innovation for research. With regard to present and future societal challenges, the contribution of the Faculty of Historical and Cultural Studies is mainly oriented towards the following three areas:

*Understanding history and culture:* In-depth understanding of the historical dimensions of contemporary challenges and processes of historical change, with a particular focus on questions of European integration and globalisation in their socio-economic contexts, migration, democracy, violence/war, gender relations and diversity.

*Communicating history and culture:* Enhancement of digital forms of generating, processing and communicating knowledge in academic research, teaching, education outside the university and for the general public.

*Learning from history and culture:* In-depth understanding of the history of the Anthropocene and the ways humans related to and interacted with nature, climate and resources in different historical periods, as well as of different forms of organising work and economy.

#### UNDERSTANDING HISTORY AND CULTURE

In its research activities related to understanding history and culture, the Faculty responds to a number of contemporary global challenges. It pays particular attention to the comparatively new, yet highly complex field of transformation research and the history of transformation processes. This research field provides manifold opportunities for collaboration with the social sciences. Research activities cover transformation processes from ancient history to the 21st century, migration movements as well as the manifold effects of socio-economic change (e.g. social inequality/labour relationships) in a global perspective (particularly in Europe and Asia, including in the Global South). They address violence, conflict and democracy in their historical and contemporary dimensions, with a particular focus on the history of the 20th and 21st centuries (dictatorships and genocide; history of human rights and democracy; cold war studies and global refugee regimes, coping strategies in response to crisis and experience of violence).

Women's and gender history as well as interdisciplinary gender studies have been established as a specific field of competence within the Faculty.

#### COMMUNICATING HISTORY AND CULTURE

In the area of communicating history and culture, the research activities of the Faculty are particularly oriented towards the following topics: Communication across academic generations: Documentation, preservation and processing of knowledge (data infrastructure) on historical and cultural processes, including their material manifestations and their digital representation.

Communication across disciplines: Analytical processing of, and informed reflection in terms of cultural studies on, these bodies of knowledge by means of exchange with a wide range of academic disciplines (data sciences, science and technology studies, history of science, social sciences).

Communication within and beyond academia: Strengthening and critical reflection of the discursive and media interfaces at all curricular stages of academic teaching, including those between academic discourse and a broader public (citizen science, GameLab, blogs, media cooperation).

#### LEARNING FROM HISTORY AND CULTURE

The research activities at the Faculty in the area of learning from history and culture focus on the history of the Anthropocene and the uses of natural resources in a broad historical perspective. The anthropogenic transformation of the Earth requires the reappraisal of established social and academic categories such as human/nonhuman, culture/nature, time, space and landscape.

By means of the interdisciplinary study of climatological, geological and socio-economic transformations and their geopolitical impact, the Faculty – combining archaeology, material culture, cultural heritage and historical studies – aims to contribute to a better understanding of chronologies (human era v. deep time) and archives (human records v. Earth's crust as an archive) and to develop new models of historical narratives.

In this context, it is of particular importance to pool competences to enable the interdisciplinary examination of different forms of material culture. At the interface between the humanities and the natural sciences, with regard to archaeology the Faculty endeavours to pool and enhance the competences and resources of archaeology, archaeometry, environmental geology etc. in their methodological interaction with competences based on written sources of the historical disciplines, both within the Faculty and beyond.

The education of students in these disciplines is characterised by a pronounced orientation towards practical application and the relevant professional fields. In addition, the cooperation with the life sciences and the geosciences will be further intensified.

# 10.6.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- · Ancient History and Papyrology
- Asian Art History
- Austrian History
- Austrian History of the 19th and 20th Centuries
- Byzantine Studies
- Byzantine Studies Ancillary Disciplines for Byzantine and Modern Greek Studies
- Classical Archaeology
- Classical Archaeology
- Contemporary History
- Contemporary History Dictatorships Violence Genocides
- Contemporary History: Cultural History History of Knowledge and Gender History
- Cultural Heritage
- Didactics of History (joint appointment with the Centre for Teacher Education)
- Digital Humanities
- Early Modern Art History (with a Focus on Baroque)
- Economic and Social History with a Focus on the History of the World Economy in the 19th and 20th Centuries
- Egyptology (with a Focus on Archaeology)
- Etruscology and Studies in Italic Classical Antiquity
- European Ethnology
- Everyday Cultures in their Historical Dimensioning
- Global Economic and Social History
- Greek History, Antiquity Studies and Epigraphics

- Historical Ancillary Disciplines with a Focus on the Middle Ages
- Historical Transregional Studies
- History and Theory of Media Cultures (18th to 20th Centuries)
- History of East Central Europe/'Nation Building'
- History of Eastern and South-Eastern Europe
- History of South-Eastern Europe
- History of the Art of Antiquity; section 99a of the Universities Act (temporary: for six years)
- History of the High and Late Middle Ages
- Human Prehistory with a Focus on the Metal Ages (Bronze Age/Iron Age)
- Islamic Art History
- Jewish History, Religion and Literature in Rabbinic Times (70–1000 AD)
- Jewish Studies
- Jewish Studies
- · Late Antique and Early Christian Archaeology
- Medieval and Early Modern Art History
- Modern Art History
- Modern Economic and Social History
- Modern Greek Studies
- Modern History Women's and Gender History
- Modern History with a Focus on the Early Modern Period
- Modern History: History of Science
- · Numismatics and the History of Money
- · Prehistoric and Protohistoric Archaeology
- Prehistoric and Protohistoric Archaeology, and Landscape and Environmental Archaeology
- Public History
- Recent Modern History
- Roman History, Antiquity Studies and Epigraphics
- Russian History
- Societies and Cultures of Memory in Eastern Europe

# 10.6.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

#### PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Austrian History: History of the Habsburg Monarchy since the 16th Century
- Byzantine Art History
- Contemporary History: Austrian Contemporary History since 1918 in an International Context
- Economic and Social History of the Late Middle Ages and the Early Modern Period
- History of Europe in the Early Middle Ages
- History of the High and Late Middle Ages
- Modern History Historical Study of Europe
- Numismatics and the History of Money (with a Focus on Classical Antiquity)

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

#### Subject dedication of professorship:

• Medieval Art History *Time of appointment:* following vacancy of the Professorship of Medieval Art History (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Social and Cultural History of the 19th and 20th Centuries *Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2023)

### Subject dedication of professorship:

 Modern History – Women's and Gender History from the Late 18th Century onwards
 *Time of appointment:* following vacancy of the Professorship of Modern History – Women's and Gender History (presumably as of 1 October 2024)

#### Subject dedication of professorship:

• Historical Archaeology with a Focus on the Later Middle Ages, Modern Times and Contemporary History *Time of appointment:* following vacancy of the Professorship of Prehistoric and Protohistoric Archaeology (presumably as of 1 October 2024)

#### Subject dedication of professorship:

 Historical Ancillary Sciences (including Digital Methods) with a Focus on the Middle Ages *Time of appointment:* following vacancy of the Professorship of Historical Ancillary Disciplines with a Focus on the Middle Ages (presumably as of 1 October 2025)

#### Subject dedication of professorship:

• Jewish Studies with a Focus on Source History and Cultural History

*Time of appointment:* following vacancy of the Professorship of Jewish History, Religion and Literature in Rabbinic Times (70–1000 AD) (presumably as of 1 October 2025)

#### Subject dedication of professorship:

 Roman Archaeology *Time of appointment:* following vacancy of the Professorship of Classical Archaeology (presumably as of 1 October 2025)

#### Subject dedication of professorship:

 Greek History, Antiquity Studies and Epigraphics *Time of appointment:* following vacancy of the Professorship of Greek History, Antiquity Studies and Epigraphics (presumably as of 1 October 2026)

#### Subject dedication of professorship:

Early Modern Art History (with a Focus on Baroque)
 *Time of appointment:* following vacancy of the Professorship of Early Modern Art History (with a Focus on Baroque) (presumably as of 1 October 2026)

#### Subject dedication of professorship:

 Modern Greek Studies
 *Time of appointment:* following vacancy of the Professorship
 of Modern Greek Studies (presumably as of 1 October 2027)

#### Subject dedication of professorship:

- Early Modern Art History
  - *Time of appointment:* following vacancy of the Professorship of Medieval and Early Modern Art History (presumably as of 1 October 2027)

#### Subject dedication of professorship:

 Historical Transregional Studies
 *Time of appointment:* following vacancy of the Professorship of Historical Transregional Studies (presumably as of 1 October 2027)

#### Subject dedication of professorship:

Austrian History of the 19th and 20th Centuries
 *Time of appointment:* following vacancy of the Professorship of Austrian History of the 19th and 20th Centuries (presumably as of 1 October 2027)

#### Subject dedication of professorship:

 Jewish Studies with a Focus on Persecution History and Antisemitism Studies *Time of appointment:* following vacancy of the Professorship

of Jewish Studies (presumably as of 1 October 2027)

### Subject dedication of professorship:

• Byzantine Studies *Time of appointment:* following vacancy of the Professorship of Byzantine Studies (presumably as of 1 July 2028)

#### Subject dedication of professorship:

• Jewish Studies with a Focus on Cultural History of the Media

*Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2028)

#### Subject dedication of professorship:

• History of Ukraine and its Regional Entanglements *Time of appointment:* following vacancy of the Professorship of Societies and Cultures of Memory in Eastern Europe (presumably as of 1 October 2028)

#### Subject dedication of professorship:

• Art History of East Asia *Time of appointment:* following vacancy of the Professorship of Asian Art History (presumably as of 1 October 2029)

#### Subject dedication of professorship:

• Economic and Social History from the 16th to the 19th Century

*Time of appointment:* following vacancy of the Professorship of Modern Economic and Social History (presumably as of 1 October 2030)

#### Subject dedication of professorship:

• Egyptology

*Time of appointment:* following vacancy of the Professorship of Egyptology (with a Focus on Archaeology) (presumably as of 1 October 2030)

#### Subject dedication of professorship:

 Roman History, Antiquity Studies and Epigraphics *Time of appointment:* following vacancy of the Professorship of Roman History, Antiquity Studies and Epigraphics (presumably as of 1 October 2030)

#### Subject dedication of professorship:

• European Ethnology with a Focus on Ethnographic Dimensions of Everyday Culture

*Time of appointment:* following vacancy of the Professorship of European Ethnology (presumably as of 1 October 2030)

#### Subject dedication of professorship:

• Modern History (with a Focus on Early Modern History) *Time of appointment:* following vacancy of the Professorship of Modern History with a Focus on the Early Modern Period (presumably as of 1 October 2030)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

Subject dedication of professorship:

Historical Anthropology

Subject dedication of professorship:

• Multimodal Approaches in the Digital Humanities with a Focus on Images and Objects

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- · Archaeology of Roman Provinces
- Archival Studies
- Art and Architecture of Pharaonic Egypt
- Central European Art History
- Economic and Social History of the Anthropocene
- High and Late Middle Ages with an Emphasis on Ancillary Sciences
- · Jewish Studies and History of Religions
- Materiality and Material Cultures
- Medieval and Modern Numismatics and the History of Money
- Modern History of Iberian Regions and America
- Modern Military History with an Emphasis on Gender History
- Papyrology
- Quantitative Economic History
- · Social and Economic History of Migration and Mobility
- · Women's and Gender History

# 10.7.1 OBJECTIVES

The Faculty of Philological and Cultural Studies covers a wide range of languages and cultural dynamics, with the focus of interest on contact, transfer, as well as conflicts between these cultural dynamics. As literature, theatre, film, music and other media forms are means of expressing the adoption of social, political, religious and cultural processes, the Faculty examines these multifaceted interactions of aesthetic forms and social 'reality'.

In this regard, knowledge of, and academic research into, languages plays a key role: More than 70 languages are taught and researched at the Faculty. The education of teachers, which is of great relevance at the Faculty, is a vehicle by which the competences pooled at the Faculty can be directly conveyed to society – which is brought about in cooperation with the Centre for Teacher Education. In addition, the Faculty also invests in matters addressing the challenges of a globalised world, and its experts are heavily in demand among the media, as well as among cultural and political stakeholders.

### 10.7.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The diversity of the humanities collaborating at the Faculty is unique in Austria; it spans the entire range of disciplines of linguistics, literature and area studies; regarding topics, the Faculty represents the following four thematic areas:

*European and global cultures and identities*: In this context, cultures and identities are not referred to in an ontological sense – for instance, as predetermined forms of being – but rather as cultural constructions. They are studied at both individual and collective levels, in specific manifestations such as social roles, as well as in relation to categories such as nationality, ethnicity or religion. However, the focus is not only on the effects of these constructions but also on the media that have contributed to them. Among these, language and aesthetic communication play a key role. The corresponding research thus covers, for instance, the consequences of colonialism, exploitation and oppression (disadvantages due to categories of difference resulting from culturalist constructions), the transformation of political systems, and especially global challenges, which are currently being discussed in the contexts of climate, global justice, democracy and education.

*Systemic and functional dimensions of communication:* The fundamental questions as to the form, structure, function and the teaching of languages represent the core of all linguistic disciplines at the Faculty, which comprise the languages of the world in both chronological and regional terms – from the major school languages, which are examined and taught with close links to perspectives of cultural studies particularly in teacher education, to 'smaller' languages that have often been, and continue to be, languages of ethnic minorities, particularly in multilingual contexts. The Faculty takes part in numerous research projects which study both European and non-European linguistic realities. In addition, basic research on the systemic properties of language is conducted at the Faculty. Aesthetics and mediality of communication: As a special system of communication, aesthetic and non-linguistic forms of expression represent a key part in the processes of cultural identity formation. Their examination contributes to grasping cultural dynamics, which are being reflected, fostered or also questioned and thus often modified by these forms of communication. To be able to describe these modifications and include them in the discussion of these dynamics, the Faculty interrelates and advances methods of cultural studies and established philological methods. In this way, the Faculty contributes to the methodological development of philological cultural studies that are able to respond to the current political, social and bioecological challenges, and thus endeavours to add to the range of approaches taken by literature studies and cultural studies. This is reflected in its participation in the emerging research paradigms such as ecocriticism, environmental and medical/health humanities, as well as cultural sustainability studies.

*Digitality:* All academic disciplines are confronted with the new opportunities as well as challenges brought about by digital technologies and methodologies. Regarding research strategies, in this cross-sectional thematic area the Faculty focuses on establishing digital forms as subjects of research in cultural studies and in teacher education. It thus takes a meta-perspective which does not regard digital data as a simple alternative to analogous data, but aims to display their specific cultural logics, which also includes the consequences of the implementation of artificial intelligence. The key question concerns the impact of digital media on cultural processes viewed from a dual perspective: the question as to the specifics of (post-)digital culture and the specifics of (post-)digital cultural studies. The Faculty closely cooperates with the Austrian Centre for Digital Humanities and Cultural Heritage (ACDH-CH) of the Austrian Academy of Sciences (OeAW).

From the above thematic areas, four specific key research areas have been derived:

# CULTURAL AND SOCIAL TRANSFORMATIONS: MOBILITY/CULTURAL DIFFERENCES/DYNAMICS OF IDENTITY CONSTRUCTIONS

The traditional forms of cultural identity formation have, without doubt, seen fundamental changes: Approaches to gender are being reconsidered, and social solidarity, political participation and collective trust capitals are being reappraised. Relationships that have traditionally been abstract are becoming concrete experiences that lead to new forms of individual behaviour. Here, the pace is determined not only by social processes such as globalisation or migration, but also by ecological and biopolitical challenges as well as by the consequences of digitalisation, which form a new basis for the modification or even revolution of cultural practices. The Faculty examines the cultural logics of these processes in order to make them comprehensible and also to enable a social discussion of these phenomena against the background of cultural studies.

Questions of gender equality and intersectional disadvantages thus form an integral part of research and teaching. This includes the study of manifestations and consequences of racism, situations of diaspora and situations of cultural conflict.

#### MEDIALITY AND DIGITALITY OF AESTHETIC COMMUNICATION

At the Faculty, aesthetic forms of communication such as literature, film or music are understood as media of reflection that respond to the challenges of intercultural constellations – and are also studied with regard to their inherent structural laws. In this way, current phenomena such as challenges regarding democracy, education and ecology (climate crisis, COVID and post-COVID situations, experience of forced migration and expulsion, etc.) can be investigated in the context of projects on these media.

To specify the profile of the methodological thematic area of digitality in the area of aesthetic communication, digital practices are studied – in addition to other media forms. In the corresponding research projects, specific attention is paid to the impact of digital reception and production, newly emerging dimensions of digital perception and the related social processes. For instance, the mediatised lifeworlds of young people are studied in this key research area. To be able to implement this with empirical data, the Faculty supports the establishment and expansion of the corresponding infrastructure.

# LANGUAGE DEVELOPMENT, LANGUAGE CONTACT, MULTILINGUALISM

Global social developments are also reflected in changes in language use, which in turn influences these processes. The Faculty examines language teaching and language learning at an interdisciplinary level and uses systematic linguistics operating with digital corpora and experimental methods to study the way in which phenomena of language contact and multilingualism are gaining social relevance. It examines language as a means of identity formation and social participation in situations of diaspora, exile, cultural conflict and migration, as well as in minority situations. Over the next few years, the historical region of Eurasia, as a zone of cultural impact in this sense, will be the focus of intensive research. However, the activities in this key research area are not limited to research across different languages but also include phenomena within individual languages (linguistic variation) such as German in Austria or language attitudes towards dialects from the perspective of the standard language. In addition, the Faculty also takes part in basic research projects of linguistic systems - for instance, on language between redundancy and deficiency.

#### ENVIRONMENTAL AND MEDICAL/HEALTH HUMANITIES

At the global level, the topics of sustainability (ecology) and health (global health) are predominant in the discussion on the future of humankind but are all too often regarded as solely technological challenges, whereas the willingness or reluctance to change sociocultural processes represents one of the major challenges in this context. Against the background of these ideologies and paradigms that are forming dynamically, traditional questions of ethics, progress or shared v. individual responsibility need to be critically reexamined. The Faculty has undertaken research initiatives on the Anthropocene and in the area of health humanities to contribute input on this fundamental topic. Research in this field is also conducted from a historical perspective - for instance, regarding the medical tradition (Ayurveda) of pre-modern South Asia. Finally, empirical research projects in the area of cognitive perception research are run at the Faculty, for instance on the perception and effect of language and sound (including among infants), or the effect of noise levels in incubators on language development and musical development.

# 10.7.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships.

- African Languages and Literature
- American Studies
- Applied Linguistics
- Applied Linguistics and Philology
- Arabic Studies
- Assyriology (Focus on Akkadian Studies)
- British Literature
- Chinese Studies
- · Chinese Studies with Emphasis on Social Studies
- Classical Philology (Greek)
- Classical Philology (Latin)
- · Comparative Indo-European Linguistics
- Comparative Literature
- Comparative Musicology (Ethnomusicology)
- Contemporary English Literature
- · Cultural History of Audio-Visual Media
- Digital Philology (joint appointment with the Faculty of Computer Science)
- · East Asian Economy and Society
- Eastern Slavic Literature
- English and Anglophone Literatures
- English Cultural and Literary Studies
- English Language Education (joint appointment with the Centre for Teacher Education)
- English Linguistics
- English Linguistics (joint appointment with the Centre for Teacher Education)

- English Linguistics: Variation and Cognition
- Film Theory
- Finno-Ugric Studies
- French and Italian Literature and Media Studies
- · French and Spanish Literature and Cultural Studies
- French and Spanish Literature Studies with Special Emphasis on Francophonia in French Studies
- General Linguistics
- German as a Foreign Language
- German as a Second Language
- German Linguistics (History of German Language and Linguistics of Varieties)
- Historical Linguistics of English
- History and Society of Africa
- Ibero-Romance Studies
- Islamic Religious Education
- Islamic Studies
- Japanese Studies with Emphasis on Cultural Studies
- Japanese Studies with Emphasis on Social Studies
- Korean Studies
- Language Learning Research with an Emphasis on English
- Medieval German Language and Literature
- Medieval German Literature with Special Emphasis on the Late Middle Ages and Including the Early Modern Period
- Medieval Scandinavian Philology and Medieval German
- PhilologyModern German Literature
- Modern German Literature and its Didactics (joint appointment with the Centre for Teacher Education)
- Modern German Literature with Special Emphasis on Austrian Literature
- Modern German Literature with Special Emphasis on Austrian Literature
- Modern German Literature with Special Emphasis on the Theory of Literature and Media Studies

- Modern Historical Musicology
- Modern Latin Philology and Classical Latin Studies
- Musicology with Special Emphasis on Medieval Historical Musicology
- Psycholinguistics
- Romance Linguistics and Communication Science
- Romance Studies (Linguistics)
- Scandinavian Studies
- Slavic Linguistics and Textual Philology
- South Slavic Literature and Cultural Studies (with an Emphasis on Philology)
- Subject-Specific Didactics (Language Teaching and Language Learning Research) (joint appointment with the Centre for Teacher Education)
- Systematic Musicology
- Theatre and Media Cultures of the Modern Period
- Theatre Studies and Cultural Studies
- Theoretical and Experimental Linguistics
- Tibetan Studies
- Turkish Studies
- Western Slavic Linguistics
# 10.7.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- · Cultural and Intellectual History of Pre-Modern South Asia
- Digital Editing
- Islam in Contemporary Society
- Languages and Cultures of Contemporary Inner and South Asia
- Modern German Literature with Special Emphasis on the 17th and 18th Centuries
- Western Slavic Literature and Cultural Studies

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

# Subject dedication of professorship:

• Applied Linguistics of Contemporary English *Time of appointment:* funding via a vacant professorship at the Faculty (presumably as of 2024)

# Subject dedication of professorship:

• Digital Media Theory and Aesthetics *Time of appointment:* funding via a vacant professorship at the Faculty (presumably as of 2024)

# Subject dedication of professorship:

• Romance Linguistics: Hispanic Studies *Time of appointment:* funding via a vacant professorship at the Faculty (presumably as of 2024)

# Subject dedication of professorship:

• Cultural and Intellectual History of the Islamic World *Time of appointment:* following vacancy of the Professorship of Islamic Studies (presumably as of 1 October 2024)

# Subject dedication of professorship:

• Early German Literature with a Focus on the Late Middle Ages

*Time of appointment:* following vacancy of the Professorship of Medieval German Literature with Special Emphasis on the Late Middle Ages and Including the Early Modern Period (presumably as of 1 October 2025)

# Subject dedication of professorship:

• Theatre and Media Cultures of the Modern Period *Time of appointment:* following vacancy of the Professorship of Theatre and Media Cultures of the Modern Period (presumably as of 1 October 2025)

# Subject dedication of professorship:

• Comparative Literature *Time of appointment:* following vacancy of the Professorship of Comparative Literature (presumably as of 1 October 2025)

# Subject dedication of professorship:

 Historical English Linguistics
 *Time of appointment:* following vacancy of the Professorship
 of Historical Linguistics of English (presumably as of 1
 October 2025)

# Subject dedication of professorship:

• Eastern Slavic Linguistics *Time of appointment*: following vacancy of the Professorship of Eastern Slavic Linguistics (with Special Emphasis on Russian) in accordance with section 99, para. 1 of the Universities Act (presumably as of 1 October 2026)

# Subject dedication of professorship:

Eastern Slavic Literature and Cultural Studies
 *Time of appointment:* following vacancy of the Professorship

of Eastern Slavic Literature (presumably as of 1 October 2026)

# Subject dedication of professorship:

 African Linguistics and Philology *Time of appointment:* following vacancy of the Professorship of African Languages and Literature (presumably as of 1 October 2027)

# Subject dedication of professorship:

 Finno-Ugric Studies
 *Time of appointment:* following vacancy of the Professorship of Finno-Ugric Studies (presumably as of 1 October 2027)

# Subject dedication of professorship:

- Arabic Studies
  - *Time of appointment:* following vacancy of the Professorship of Arabic Studies (presumably as of 1 October 2027)

# Subject dedication of professorship:

• Romance Literature and Media Studies: Francophonia *Time of appointment:* following vacancy of the Professorship of French and Spanish Literature Studies with Special Emphasis on Francophonia in French Studies (presumably as of 1 October 2027)

# Subject dedication of professorship:

German Linguistics (Contemporary German)
 *Time of appointment:* following vacancy of the Professorship of German Linguistics in accordance with section 99, para.
 1 of the Universities Act (presumably as of 1 October 2027)

# Subject dedication of professorship:

 Functional and Cognitive Linguistics of Contemporary English *Time of appointment:* following vacancy of the Professorship of English Linguistics: Variation and Cognition (presumably as of 1 October 2028)

# Subject dedication of professorship:

• Scandinavian Literature and Cultural Studies *Time of appointment:* following vacancy of the Professorship of Scandinavian Studies (presumably as of 1 October 2028)

# Subject dedication of professorship:

Ethnomusicology

*Time of appointment:* following vacancy of the Professorship of Comparative Musicology (Ethnomusicology) (presumably as of 1 October 2028)

## Subject dedication of professorship:

 Romance Literature and Media Studies: Lusitanian and Hispanic Studies
 *Time of appointment:* following vacancy of the Professorship of Ibero-Romance Studies (presumably as of 1 October 2029)

# Subject dedication of professorship:

 Japanese Social Studies
 *Time of appointment:* following vacancy of the Professorship
 of Japanese Studies with Emphasis on Social Studies
 (presumably as of 1 October 2029)

#### Subject dedication of professorship:

• Modern German Literature from the Enlightenment to the Present

*Time of appointment:* following vacancy of the Professorship of Modern German Literature (presumably as of 1 October 2030)

# Subject dedication of professorship:

• German as a Second Language

*Time of appointment:* following vacancy of the Professorship of German as a Second Language (presumably as of 1 October 2030)

# PROFESSORSHIPS IN CONNECTION WITH THE ESTABLISHMENT OF THE BACHELOR'S PROGRAMME IN ISLAMIC THEOLOGY

In connection with the establishment of the bachelor's programme in Islamic Theology, section 24 of the 2015 Islam Act provides for up to six positions for highly qualified teaching staff, preferably either as professorships (section 98 or section 99 of the Universities Act), or as tenure track positions. According to the 2015 Islam Act, the financing obligation rests with the Federal Government, irrespective of the 2002 Universities Act. Taking the situation on the academic labour market into account, in the medium term the aim is to ensure an appropriate mix of the types of positions listed here, while taking into account the academic subjects to be covered and the personalities of the academics who are working at the University of Vienna in this area.

For these six positions, the following subject dedications have been defined, provided that advertising and recruitment takes place on the basis of section 98 of the Universities Act.

# Subject dedication of professorship:

• Islamic Theological Philology: Textual Studies of Koran and Hadith

# Subject dedication of professorship:

• Islamic Systematic Theology (kalām)

# Subject dedication of professorship:

• Jurisprudence and Ethics in Islam

# Subject dedication of professorship:

• Islam in Contemporary Society

# Subject dedication of professorship:

• Alevi Theological Studies

# Subject dedication of professorship:

• Islamic Religious Education (cooperation with the Faculty of Catholic Theology and the Faculty of Protestant Theology with regard to advertising and recruitment)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

• Yiddish Literature and Cultural Studies

# Subject dedication of professorship:

• Comparative Literature with a Focus on Transcontinental Literature Relations

# Subject dedication of professorship:

• Digital Image and Material Analysis in Cultural Heritage

#### Subject dedication of professorship:

• Artificial Intelligence in the Humanities

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Modern German Literature. Digital Literature Studies
- Scandinavian Medieval Studies
- · Ottoman Studies: Literary and Cultural History
- Romance Linguistics: Language Acquisition
- Instructed Second Language Acquisition and Learning of English (joint appointment with the Centre for Teacher Education)
- Modern German Literature. Diversity and Gender
- Scandinavian Linguistics

# 10.8.1 OBJECTIVES

The Faculty of Philosophy and Education contributes visibly to research at the international level, and its research practices are geared towards diversity and inclusion, which are also among its research topics. The promotion of early stage researchers is one of the Faculty's most important commitments.

Research in the fields of both philosophy and education is intertwined in many ways with other disciplines in the humanities, social sciences, and natural sciences. The Faculty attaches great importance to cooperation with partners both within and outside academia, as well as to its social responsibility, particularly through its engagement in the Third Mission.

Philosophy is understood by the Faculty as a domain that encompasses timeless fundamental questions as well as contemporary issues and application problems which require both specialised research and synthetic synopsis. Philosophical research studies classical topics but is also shaped by innovations arising from current scientific or technological developments and from societal issues, as well as increasingly from mutual fertilisation between different sub-disciplines of philosophical research.

The Faculty therefore aims to represent the field of philosophy, at an international level, in its interdisciplinary and societal interconnections as broadly and diversely as possible. It seeks to secure and to promote the conditions under which the Faculty achieves important and internationally impactful progress in philosophical knowledge.

Education is understood by the Faculty as a historically evolved, complex field of institutions, organisations, practices and actors involved in teaching, learning and growing up. As such, education is also the result of the interplay of – at times competing – ethical, social, cultural, religious, political, and economic interests, preferences, and expectations that originate and interact at local, national, and global levels.

The aim of the Faculty to contribute to the international scholarly discourse through educational research based on internationally established principles with both theoretically oriented research achievements as well as a variety of concrete local and cross-regional case studies.

# 10.8.2. KEY RESEARCH AREAS

# THEORETICAL PHILOSOPHY

Research in theoretical philosophy contributes to the clarification of important basic concepts of our understanding of the world and of ourselves.

The Faculty conducts research into our concepts of truth, and whether truth is definable. It also examines what questions philosophy can address, what conceptual analysis and conceptual engineering can accomplish, and what the significance of moral judgements is.

In addition, it investigates questions concerning the fundamental structure of the world, thus pursuing classical topics of metaphysics – such as the question of how parts and wholes fundamentally relate to each other. It examines the nature and properties of social facts, as well as the relationship between knowledge and power: To what extent does gender – as a social construct – determine to whom knowledge is attributed? What is the effect of gender roles on our perception of the world?

These questions call for interdisciplinary cooperation and input through the philosophical core competence of defining fundamental concepts.

The Faculty systematically investigates fundamental questions of the philosophy of cultural studies and social sciences, cognitive sciences and medicine, as well as scientific modelling and representation in general, with specific emphasis on interdisciplinary model transfer, synthetic biology, big data and computational methods. This also includes research into the cognitive, epistemological and organisational foundations of knowledge generation and innovation from the perspectives of epistemology, philosophy of science, as well as current approaches in cognitive science.

# PRACTICAL PHILOSOPHY

The relevance of this area of philosophical research lies in its contribution to human action orientation and self-knowledge. It provides answers to questions concerning the justification of moral norms and practices. The constitutive and normative foundations of social identity and societal forms of life, as well as questions in philosophy of religion, are just as important as the ethics of collective action and joint responsibility. New thematic areas of political ethics (e.g. war and peace) and current debates on natural ethics and particularly animal ethics (in cooperation with veterinary medicine and behavioural research) are also studied. To contribute to scientific citizenship, the necessity for action which takes climate, environment and effects on nature into account is explicitly studied in normative terms as climate justice. This also covers the ethics of procreative decisions in view of the negative impact that human population, particularly in the countries of the Global North, has on climate. Here, it is important to apply the concepts, positions and arguments of ethics and the theories of justice and of democracy to specific aspects of the economic sphere, as well as to address normative questions arising due to new technologies such as artificial intelligence and robotics.

Specific attention is paid to connections with new developments in epistemology and in political philosophy in order to further analyse the philosophical foundations of the philosophy of media and technology and thus to consolidate this rapidly developing area of research.

Regarding didactics of philosophy and ethics, this key research area focuses on didactic questions regarding approaches to texts, as well as on non-text-based forms of teaching. Here, as well as in the area of philosophical practice, special emphasis is placed on developing an ethics of argumentation.

# HISTORY OF PHILOSOPHY

The significance of the focus on history of philosophy lies in the special importance of the discipline's history for philosophical research. The Faculty conducts innovative research spanning from ancient philosophy, medieval and early modern philosophy, philosophy of the Enlightenment and the modern period, to the Vienna Circle and, in particular, Ludwig Wittgenstein. A characteristic feature of research in history of philosophy is that it consists of specialised research, and that it also contributes to the inclusion of the historical dimension in numerous systematic research activities in the field of theoretical and practical philosophy.

Regarding ancient philosophy, research at the Faculty primarily focuses on the Platonic and Aristotelian traditions, starting with Plato and Aristotle up to late antiquity and the ancient commentators. Research in the field of medieval philosophy is concerned with the multifaceted question of difference and continuity on the threshold to the early modern period. In the philosophy of enlightenment and modernity, important lines of development – including Kantian and post-Kantian philosophy in particular – are traced, extending to contemporary philosophy. A further focus in this area is on the historical analysis of formalist developments in the philosophy of mathematics and of logic, as well as on the formal philosophy of science, and on the history of phenomenology.

Research on Wittgenstein and on the history of the Vienna Circle, which is of particular importance to the Faculty, focuses on the areas of epistemology, ethics and philosophy of religion, as well as areas that have so far played a less prominent role, namely the philosophy of mathematics and philosophy of mind.

# CULTURE, EDUCATION AND INSTITUTIONS

Educational research at the University of Vienna investigates educational institutions such as the family, school, university and non-formal education as an expression of cultural and social expectations that are often legally sanctioned and governed, while being organised, guided, financed and controlled in various ways. Of particular interest is how these institutions, in which the individual and society interact, have played a variety of different roles and undergone shifts in meaning over time, particularly due to the discursive, regulatory and practical consolidation of values such as democracy, human rights and children's rights. All of these aspects intertwine with processes and concepts of education, culture and democracy.

One important aspect relates to the discrepancy between state control of educational issues in families, which is largely limited to the definition of framework conditions and basic obligations, and state control of schools, which has led to a considerable expansion and differentiation of educational systems as well as to a professionalisation of how teachers, pedagogical and administrative staff are trained. Particular attention is paid to the emergence and impacts of modern school systems in their dual function of national integration and social differentiation. Based on historical, comparative and (inclusive) educational methods, these processes of integration and stratification are studied across different time periods and cultural contexts, taking into account how aspects of education and upbringing are negotiated at the individual and collective levels, how they undergo various processes of (de-)institutionalisation; and education plays both a disciplining and empowering role. Special importance is placed on questions of social justice as a determinant of different lived realities, such as exclusion, systems of selection and transition, as well as forced and voluntary migration, which are some of the greatest challenges faced by modern democracies.

# EDUCATIONAL EPISTEMOLOGIES, THEORIES AND METHODOLOGIES

This key research area attaches particular importance to the context dependency of various forms of knowledge production. Against the background of the contextuality and contingency of educational processes, the research activities at the Faculty have developed epistemological cultural sensitivity with regard to different traditions of theory formation and different methodological approaches as well as to the power relations that are reflected in institutional, economic and administrative (educational) structures and in the relationships between researchers and those being researched.

In the context of postcolonial theory formation and with a view of a world shaped by migration and globalisation, Eurocentrism as well as ableist and racist epistemologies are increasingly questioned. Against this background, this key research area deals specifically with the tension between dominant global research approaches and locally and regionally rooted, alternative epistemologies. It examines discursively hegemonic epistemologies on the one hand as well as curricula, teaching materials and instructional technologies on the other, which are generally designed to reproduce national identities and hegemonies, drawing on culturally and politically negotiated distinctions between the 'normal' and the 'deviating', or between desirable and undesirable identities and behavioural norms of adolescent and adult learners.

An appropriate response to these challenges does not lie in the search for an Archimedean point in research, but by taking into account the respective local and national epistemological specificities and a diversity of research methodologies and methods, whose further development and interrelations are to be studied and applied in the research projects.

# ETHICS, SOCIAL JUSTICE AND SUSTAINABILITY IN EDUCATION

Educational discourses, practices, and research have traditionally been characterised by strong moral motives, whose normative and ethical contexts have only rarely been analysed from a meta-perspective. Not least against the background of pressing global challenges such as sustainable development, this key research area pursues historical and systematic approaches in order to examine the underlying moral narratives that have turned education into a cultural, social and institutional practice in which the resolution of social problems in particular, and the future of humankind in general, are negotiated.

It is assumed that educational claims at the individual level are on the one hand coined by empowerment strategies aiming for the future citizens' active participation in processes of social change and progress (the latter being defined in divergent ways); and by moralising strategies on the other hand, which require citizens to become norm-compliant, virtuous members of society. This has recently become apparent in media education, which has assumed a significant role for forming and fostering media literacies – especially against the background of a moral approach to the use of the Internet and the growing influence of social media and artificial intelligence.

In addition, research examines how moral and pedagogical expectations at the institutional level can be translated into the demand for levelling out inequalities by means of schooling and education. From an intersectional perspective, in which various aspects of discrimination – such as pertaining to a person's ethnicity, origin, gender, disability, illness, age, religion, and history of forced or voluntary migration – are taken into account, processes of educational inclusion and exclusion are analysed, and suitable pedagogical tools of teaching and learning are developed in order to eliminate various forms of discrimination in formal, informal and non-formal settings of socialisation and learning.

# 10.8.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Analytic Philosophy with Special Emphasis on Philosophy of Language
- · Applied Philosophy of Science and Epistemology
- Comparative Research on Education and Schooling
- Education and Inequality
- Education with Special Emphasis on Psychoanalytical Education, Special Needs and Inclusive Education as well as Social Education
- Education/Philosophy of Education
- Empirical Educational Research
- Empirical Educational Research and Theory of Education
- Ethics with Special Emphasis on Applied Ethics
- Formal Philosophy
- Media Education with Special Emphasis on New Media
- Moral and Political Philosophy

- Philosophy and Ethics in School and Society
- Philosophy of Media and Technology
- Philosophy of Science
- Philosophy of Science and Cognitive Science
- Political Philosophy and Social Philosophy
- School Pedagogy with Particular Emphasis on Secondary Education (joint appointment with the Centre for Teacher Education)
- School Pedagogy with Particular Emphasis on Social, Cultural and Linguistic Diversity (joint appointment with the Centre for Teacher Education)
- Theoretical Philosophy

# 10.8.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Education in the Life Course
- Inclusive Education and Disability Research (joint appointment with the Centre for Teacher Education)
- Philosophy of Enlightenment and Modern Thought

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

# Subject dedication of professorship:

• Epistemology *Time of appointment:* as of 2024

# Subject dedication of professorship:

• Eastern Philosophy *Time of appointment:* funding via a vacant professorship at the Faculty (presumably as of 2024)

# Subject dedication of professorship:

• Philosophy of Mind *Time of appointment:* following vacancy of the Professorship of Applied Philosophy of Science and Epistemology (presumably as of 1 October 2025)

# Subject dedication of professorship:

 Foundations of Education *Time of appointment:* following vacancy of the Professorship of Education/Philosophy of Education (presumably as of 1 October 2027)

# Subject dedication of professorship:

• Philosophy of Science *Time of appointment:* following vacancy of the Professorship of Philosophy of Science (presumably as of 1 October 2028)

# FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

# Subject dedication of professorship:

• Aesthetics

# Subject dedication of professorship:

• Theories and Methodologies of Social Work and Education

# Subject dedication of professorship:

• Education Policy and Curriculum Studies

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

• Applied Ethics

# 10.9.1 OBJECTIVES

Research and teaching at the Faculty of Psychology, in line with the general objectives of this discipline, focus on the description and explanation of human experience and behaviour, as well as the changes they undergo. The explicit objective is to address everything from the foundations of the relevant processes to the (evidencebased) application and transfer of the insights gained. Basic and application-oriented research are regarded as equally relevant and as interrelated. Diversity in research approaches and topic areas is seen as an asset. On the basis of research approaches in the areas of neuroscience, cognitive science and social sciences that complement each other in an integrative way, the Faculty seeks to make theoretically sound and empirically testable contributions to the advancement of academic knowledge as well as its transfer. Over the next few years, particular emphasis will be placed on identifying social and technological changes and their corresponding potential and on understanding and shaping them from a psychological perspective, as well as reflecting on, and functionally advancing, their further effects on human experience and behaviour. In this way, the Faculty will contribute to the programme of the United Nations' Sustainable Development Goals of 2015. Examples of fields of action in which knowledge of psychological processes in this regard will be of great relevance include health and well-being; education; social and ecological sustainability; demographic change; social inequality; and digitalisation. The research activities at the Faculty also aim to provide relevant input in terms of social responsibility, and to pursue the Third Mission as one of its explicit tasks.

In addition to research on the psychological aspects of the above fields, a further goal is to approach this research in an inter- and transdisciplinary way, as part of the international research arena, and in cooperation with related disciplines (such as cognitive science, life sciences, education, business and economics, as well as computer science, philosophy, sociology, medicine, environmental and other natural sciences). Consequently, high-quality research infrastructure is of great importance and represents a decisive factor for the Faculty's success. Beyond this, the Faculty regards the targeted career development of early stage researchers as being of key relevance over the next few years. Should a new legal framework regarding psychotherapy education at the university level be adopted, the Faculty of Psychology considers itself professionally responsible for the design of corresponding degree programmes.

# 10.9.2 THEMATIC AREAS AND KEY RESEARCH AREAS

To further specify the aforementioned objectives of the Faculty, the next few years will be devoted to gaining additional academic insights into the following broad thematic areas, which represent the manifold research activities at the Faculty.

*Cognition, emotion and methods in psychology:* Cognition and emotion play a special role in human experience and behaviour. In order to enable a deeper understanding of these phenomena, lab experiments and research approaches applied in neuropsychology are used, and methods of research synthesis and computer-aided modelling are being developed. The insights gained in areas such as attention, aesthetics, learning and memory, social and environmental behaviour will take effect in society through innovative application-oriented research and interventions, in order to enable positive effects on, and recommendations for, health-related as well as socially, economically and ecologically more sustainable and more responsible patterns of behaviour and systems.

*Clinical and health psychology:* This thematic area focuses on the further development of the understanding of phenomena relevant to clinical psychology and health psychology. In the context of the biopsychosocial model, its research focuses on biological, cognitive, affective, behavioural and social processes of health and impairment. Specific research questions relate to fundamental mechanisms of disorders and diseases as well as to processes that help attain or preserve mental and physical health. In this context, social diversity and psychological coping processes are also taken into account. The research programme is based on multi-methodical designs that embrace approaches applied in biopsychology, behavioural psychology, as well as in the social sciences and neuroscience.

Findings are relevant for clinical-psychological diagnostics and treatment as well as application-oriented prevention and intervention programmes.

*Occupational, economic and social psychology:* Research in this thematic area focuses on the question as to how human beings tackle the challenges and changes that they face in occupational, economic and social settings. The topics addressed include, for instance, the way in which human beings adapt to new requirements at work and how they cope with the challenges of digital change.

In addition, psychological determinants of sustainable consumption in the context of climate change, as well as social determinants of health and well-being are studied. The researchers examine general mechanisms in areas such as attention, motivation and decisionmaking, and derive from them practical consequences that can help individuals and society to respond to changes more effectively. The wide range of methods (experiments, experience sampling, panel studies, physiological measurement and machine learning) used in this area of research also create points of connection with other academic disciplines.

Developmental and educational psychology: On the one hand, human cognitive abilities and in particular their development are investigated in this thematic area. On the other hand, research on social and emotional processes comprises the social development of babies and children, family psychology topics, parent-child relationships and the transition to adulthood as well as ageing processes. Lifelong learning is a further research focus, particularly regarding the development and enhancement of self-regulated learning skills, motivation, well-being and emotions in different learning and achievement contexts, as well as the development and modification of gender stereotypes in educational contexts. The innovative input of this research programme is the way it integrates aspects of developmental psychology, educational psychology and differential psychology and psychological diagnostics, in order to gain profound psychological insights into processes of development and learning in different contexts throughout life.

The Faculty has defined specific key research areas across these thematic areas for the next few years, which will generate innovation and synergies at the intradisciplinary and interdisciplinary levels, and (hopefully) enhance the visibility of the University of Vienna and the input of the Faculty towards attaining the objectives mentioned above.

These key research areas combine the perspectives of the four thematic areas and jointly focus on the decisive role of psychological processes with regard to active approaches to, coping with, and responding to, social and technological changes/challenges. In line with the objectives set by the Faculty, the focus is on research questions regarding the fields of health, education, art/culture and sociality, digital transformation, as well as environment and climate. The following guiding topics and associated research will therefore take priority in the coming years:

# PSYCHOLOGICAL EFFECTS OF SOCIETAL AND TECHNOLOGICAL CHANGE

In this area, the effects of social and technological change on human thinking and feeling, as well as the examination of the psychological (neuronal, cognitive, affective, motivational, etc.) processes involved are studied.

In recent decades, society has been confronted with major changes and crises. These changes have led to fundamental challenges for human health and well-being (e.g. the impact of climate change or psychological problems due to the COVID-19 pandemic), and further changes are likely to occur, which will affect areas such as health, education, the environment and the digital transfer. Psychology can provide relevant academic insights into the way in which individuals, groups and societies are affected by such changes, and into their effects on human experience and behaviour.

# SHAPING OF AND COPING WITH SOCIETAL AND TECHNOLOGICAL CHANGES

Research in this area will deal with prevention programmes, interventions and general measures that can support people in their responses to challenges and change.

It is important to understand how a changing and challenging environment influences human experience, while human beings can, in turn, also respond to changes and challenges in a proactive and functional way. Psychology can make an essential contribution towards understanding this adaptive behaviour. One particularly important aspect will be to understand the way in which psychological interventions need to be put in place to encourage adaptive and sustainable change.

In addition, the Faculty sees great potential for participating in the search for the principles of life and questions of the evolution of human cognition, emotion and behaviour.

# 10.9.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Social Psychology with a Focus on Decision Making and/or Intergroup Research (Cultural Comparison) [Applied Social Psychology and Consumer Research]
- Biological Psychology
- [Social, Cognitive and Affective Neuroscience]
- Clinical Adult Psychology
- Clinical Child and Adolescent Psychology
- Developmental Psychology
- Educational Psychology and Societal Changes
- General Psychology [Cognitive Psychology]
- · General Psychology [Psychology of Aesthetics]
- Health Psychology
- Methods of Psychology
- Psychological Research Methods Research Synthesis
- Psychology [Psychological Research on Education and Transfer]
- Psychology of Ageing
- Psychology of Motivation
- Psychotraumatology
- Social Psychology in the Context of Work, Society and Economy
- Urban and Environmental Psychology
- Work Psychology [Work and Organisational Psychology]

# 10.9.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

• (Clinical-Psychological) Intervention Research

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Work and Organisational Psychology *Time of appointment:* following vacancy of the Professorship of Work Psychology (presumably as of 1 October 2024)

# Subject dedication of professorship:

• Emotion Psychology *Time of appointment:* following vacancy of the Professorship of General Psychology (presumably as of 1 October 2029)

# FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

# Subject dedication of professorship:

Computational Psychology

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track position in particular:

• Psychology of Digitalisation

# 10.10.1 OBJECTIVES

The key task of the Faculty of Social Sciences is to provide critical, academically sound analyses of societal challenges and processes of change at global, national and local levels. The societal changes and challenges of the present day are manifold, and result, for instance, from increasing digitalisation, globalisation, climate change or migration. Values and ways of living are diversifying; structures and framework conditions are being transformed; well-established societal orders are being questioned; and new forms of social inequality are emerging. The social sciences are thus facing many new and pressing questions as well as complex challenges at many different levels, which require the development of adequate approaches, analyses and explanations.

The social sciences are expected, more than ever before, to contribute to a better academic understanding of these complex processes of transformation on the one hand, and to participate in finding solutions and supporting ongoing restructuring processes on the other. Beyond making excellent contributions to international academic debates, one clearly defined goal of the Faculty is to transfer newly generated knowledge to different social fields of action in order to make a significant contribution to the development of social innovations. By producing knowledge that is of relevance to society, the Faculty assumes its social responsibility as an academic institution.

Research at the Faculty follows theory-driven empirical approaches, uses a great variety of methods, including comparative methods, and covers the entire range from basic to application-oriented research questions. In this respect, the Faculty is committed to international standards of academic excellence. Geographically, its research covers almost all regions of the world, with different disciplines having different focuses. At the same time, the Faculty pays specific attention to the Austrian situation in European and global contexts. As research on societal change is increasingly cutting across boundaries of traditional disciplines, the Faculty of Social Sciences aims at establishing close links and cooperation between its different disciplines, and at the expansion of interdisciplinary collaboration with other faculties of the University. Furthermore, the Faculty's researchers seek cooperation with institutions outside the university structure and innovative forms of international collaboration and exchange with scientists with different disciplinary backgrounds from all over the world. This development of the Faculty is promoted by a proactive orientation towards internationalisation with regard to academics and students.

# 10.10.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The wide range of research subjects covered at the Faculty is best described as a matrix structure. On the one hand, research takes place in eight disciplinary areas, which are characterised by specific methodological approaches, theory formation, a variety of regional focuses and different historical developments. On the other hand, there are five interdisciplinary key research areas, in which societal problems and challenges of common interest are studied across different disciplinary fields. This structure enables the Faculty to further develop existing strengths and well-established research traditions while creating space for future-oriented innovative research topics.

Social and cultural anthropology studies the diversity of human ways of life, practices, ideas and forms of organisation regarding their local expressions and global links. Based on ethnographic research in many places all over the world, it develops theoretical, comparative and historical perspectives on complex social problems such as migration, digitalisation, politics, economy, climate change, health, religion, gender relations and intersectionality. Specific attention is paid to the analysis of different forms of inequality, discrimination and exclusion in the Global South and North. In the multiple theoretical and methodological approaches of social and cultural anthropology, one particular focus is on the interactions between global transformations and local processes.

In *sociology*, the focus is on analyses of current societal challenges and developments in Austria and Europe. Research is oriented towards current societal problems, has a strong empirical orientation and is closely related to contexts of application. It is integrated into international discourses and develops sociological theories on the basis of relevant social diagnoses. The current focuses are (1) work, organisation and gender relations; (2) family, generations, life course and health; (3) migration, cities, social policy and social inequality; as well as (4) knowledge, culture and visual worlds. The area of *political science and government* empirically and theoretically addresses questions of politics and governance, state and democracy, and their developments and changes in different regions of the world and different policy fields. Four main areas are covered: (1) political theory (research into the history of ideas and the normative foundations of political order, and into the transformation of gender relations and political culture); (2) comparative politics (comparison of political systems in different world regions and study of democratic representation, of public opinion, political institutions and organisations, as well as different policy fields and policy instruments); (3) Austrian politics (research into political institutions and stakeholders, political competition, migration and diversity, as well as public policy) and Europeanisation; and (4) international politics (analysis of globalisation, studies of sustainability and resource policies) and European studies. The activities in each of the above areas are characterised by problem-oriented perspectives in research and teaching, a plurality of approaches to research, as well as interdisciplinary cooperation. One common denominator in research is the analysis of processes of political and societal transformation.

Research in the area of *communication* focuses on the empirical and theoretical examination of private and public communication processes through media and technology, as well as their infrastructural conditions. The analyses in this field concern changes – driven by digitalisation – in the forms of mediatisation and mediated contents and the resulting effects on individuals, society, politics and organisations. The 'communicators' studied are traditional multipliers such as journalists as well as politicians or entrepreneurs and private individuals. The main research topics currently include (1) journalism, (2) political communication research and media policy, (3) advertising and public relations, (4) interactive digital media and media change, (5) media entertainment research, (6) health communication, and (7) method development, in particular with regard to computational communication science.

In *science and technology studies*, the focus is on the increasingly closer links between change in science and technology on the one hand, and social change on the other. Analyses in this field are of great relevance today as innovation in science and technology is regarded as both a means for overcoming major societal challenges and a driver of the economy. However, new knowledge and new technologies often give rise to controversial socio-political questions, as is apparent in the current example of digitalisation. With regard to topics, the focus is on analysing how knowledge and innovation are generated, what role science and technology play in the organisation of societies at global and local levels, and how this is discussed and influenced in democracies. Across different topics, the role of values and evaluations in science and society, as well as questions of responsibility in research and innovation are studied. The interdisciplinary cooperation with natural sciences and technoscientific fields is of great relevance for science and technology studies at the Faculty.

In *nursing science*, the focus is on questions of nursing as a field of action. It covers both formal and informal nursing along a chain of care services throughout the whole lifespan of human beings. Its analyses encompass various levels from individuals to families, institutional contexts, care communities, as well as social and political structures. Links between medical and social science perspectives on nursing are currently established within four focal areas: gerontological nursing, family-related nursing, palliative care and community care, as well as oncological nursing. In addition to basic research and evaluation of interventions, the focus is on health services research and implementation research, evidence-based approaches, as well as framework conditions for professional nursing.

Research in the area of *development studies* is oriented towards a transdisciplinary analysis and reflection of global inequalities, a critical discussion of development cooperation, as well as methodological questions of development research. This integration of different perspectives into the analysis of problem areas is necessary to enable a profound understanding of political, economic, social and cultural processes, dynamics and power structures at the global and local levels. Transdisciplinary development research therefore incorporates the perspectives of different areas of knowledge and practice and is aimed at linking theory and practice.

*Demography* focuses on an analysis of changes in population sizes and population structures in terms of age, gender, place of residence, qualification, labour force participation rate, and other relevant individual characteristics. Formal demography analyses these changes with the aid of mathematical models that also permit forecasts over several decades based on assumptions on future fertility, mortality and migration. This also includes a substantial analysis of the determinants of these components of demographic change. Another important question relates to the consequences of demographic changes on society, the economy and the environment in all parts of the world.

The Faculty's research profile is complemented by interdisciplinary collaboration. The individual disciplines cooperate in five key research areas. As different methodological and theoretical approaches are combined, it is possible to examine complex societal challenges in a collaborative research effort, and to make them accessible to social stakeholders. The key research areas at the Faculty study the fundamental global challenges societies are immediately and explicitly facing today, contribute to a better understanding of the resulting issues of social justice and inequality. Research aims at visible impact on social and political stakeholders at the global, national, regional and urban levels. It has a strong international orientation which is firmly rooted in local and national contexts. The five key research areas combine a number of strong points of research at the Faculty across disciplinary and epistemological boundaries and emphasise the interdisciplinary and transdisciplinary links in research at the Faculty with regard to significant social challenges.

All key research areas focus on individuals, social groups, organisations and societies embedded in urban, regional, national and global contexts. They take into consideration (unequal) transnational relations and the effects of translocal dynamics and post-colonial heritage, as well as intersectional inequalities, with a special emphasis on gender and its interaction with other structural categories such as 'race', ethnicity, sexuality, religion, disability or class. Developing and/or applying rigorous, innovative digital or transdisciplinary methods of social science provides solid knowledge bases to facilitate evidence-based decision-making, social innovation and political action. The key research areas acknowledge the disruptive potential of artificial intelligence for research in the social sciences, and point to the need for its critical, reflexive and responsible integration into practical research. It is an explicit goal of the entire research at the Faculty of Social Sciences – within the key research areas and beyond – to produce knowledge of social relevance as well as societal impact, while critically reflecting on processes of knowledge production.

## SOCIAL AND ENVIRONMENTAL SUSTAINABILITY

Research in the area of social and environmental sustainability comprises research activities focusing on the concepts and practices of sustainability, contributing to a sustainable future, a resilient population, socio-ecological change and to climate justice. This research revolves around the common denominator of building more sustainable societies and environments. To this end, research examines how climate change, and related technological developments and political processes are shaped by different social groups and in different regions or how these are affected. The corresponding research projects study, for instance, issues relating to current sustainability transformations in the areas of energy, mobility, infrastructure and demographic change; questions of generational conflict, social and political conflict and new forms of social mobilisation; as well as questions of global environmental regulations, relationships between nature and society or climate justice and solidarity economy in a global context.

Research in this area has an impact on the development of scenarios for an integrative, safe, resilient and sustainable future and the implementation of multi-scale sustainable transformations.

# HEALTH, WORK AND THE LIFE COURSE

The key research area of health, work and the life course studies the social relevance of health and well-being during all stages of life, including far-reaching local, national and global inequalities. It examines how the health and well-being of societies, communities, families and individuals are influenced by structural conditions, educational and health care systems, political institutions and conflict, welfare states, work and organisational environments, communication infrastructures, intersectional inequalities and other social relationships and norms, as well as by care relationships and care structures. A particular focus is on life course research in the areas of education and qualification, the transition from school to work, work and employment histories, as well as family formation. Through research into health-related resilience and healthy ageing, taking into account interrelations and inequalities at the individual and collective as well as national and international levels, scholarship contributes to more liveable societies. For this purpose, the social determinants of health are critically analysed, as are the areas

of care work, work, family, work environments and school settings, health policy, medicine and science. Societal impact is achieved through close cooperation with many different global, national and local stakeholders, who are in charge of health-related or care-related issues or concerned with tackling respective challenges.

#### DEMOCRACY, SOLIDARITY AND DIALOGUE

The area of democracy, solidarity and dialogue examines the political and social forces that determine the organisation of societies and the (re)distribution of power and resources.

Research in this field focuses on political dynamics and processes at various levels of government, on questions of solidarity, inclusion, exclusion and inequalities, as well as on power relations and conflicts, including security interventions within and between societies and global multirelational processes. It also includes the study of the politicisation of identities in the context of elections, the role of political competition, social conflict and protests, as well as political and social polarisation. This key research area is concerned with dynamics in political communication and the dialogue between states or state-like entities such as the European Union, organisations and citizens; it examines the significance of communication infrastructures for private and public spheres and the role of misinformation and digital security issues. Research in this field produces relevant knowledge for various social and political stakeholders to foster effective, responsible and inclusive institutions and democratic resilience.

# KNOWLEDGE CULTURES AND DIGITALISATION

Research concerning knowledge cultures and digitalisation examines the complex interrelations between technological developments and social and academic knowledge production. It seeks to understand which dynamics are influencing and fostering the development of technologies and social relations, and the ways in which individual, social and global inequalities are shaping these processes. Particular attention is paid to the critical reflection on the production and dissemination of academic and non-academic knowledge, including intersectional inequalities in its production and reception in local, national and global dimensions, as well as to understanding current trends in science scepticism.

The development of newly emerging digital-physical infrastructures is analysed and reflected upon. In order to contribute to the decolonisation of knowledge and to reflexive forms of knowledge production, innovative transdisciplinary and multimodal methods are developed and also questioned while taking critical approaches to research ethics into account. This key research area is concerned with the position of the social sciences in society and their role in knowledge production, in science policy and at the interfaces with society, in order to enhance and underpin the transfer and societal impact of knowledge produced by social scientists.

# MOBILITIES, INCLUSION AND BELONGING

Research in the area of mobilities, inclusion and belonging focuses on the dynamics of increasingly mobile societies from global, national, regional and urban perspectives, as well as on changing and intersectional constructions of belonging. The researchers in this area study and critically analyse the complex relationships between the mobility of human beings, objects and ideas, as well as inequalities, hierarchies and power relations that are increasingly brought about and constituted by such movements at various levels. Another focus is on new forms of mobility and migration. This includes the examination of global transformations, which result in new forms of inclusion, exclusion and inequality, as well as of the manifold political and cultural forms of expression, protest and resistance in striving for social justice. The role of identity, belonging and diversity is studied particularly with regard to gender-related and sexual orientations, ethnic and cultural identities or social classes and their intersectionalities. Research contributes to understanding the interactions between local realities, conflicts and global and regional changes, and provides relevant knowledge concerning responses to socially controversial and politicised challenges.

# 10.10.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Austrian Politics in the European Context
- Communication
- Communication
- Communication with a Focus on Advertising Research
- Communication with a Focus on Media Change and Media Innovation
- Communication with a Focus on Public Relations Research
- Comparative Policy Analysis
- Comparative Political Institutions
- Comparative Politics
- Computational Communication Science
- Development Sociology
- Empirical Social Research Methods: Social Network Analysis with Regard to Ethnographic Methods
- International Politics
- Journalism
- Material Culture and Consumption Studies
- Medical Anthropology and Global Health
- Methods of Empirical Social Science with a Focus on Text Analysis
- Methods of Social Sciences
- Political Sociology
- Political Theory
- Quantitative Political Party and Election Research
- Social and Cultural Anthropology
- Social Stratification Research and Quantitative Methods

- Social Studies of Science
- Sociocultural Anthropology of the Global South
- Sociology
- Sociology of Knowledge and Culture
- Sociology of the Family
- Technosciences, Materiality and Digital Cultures
- Urban Sociology

# 10.10.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Demography
- European Studies
- International Development
- Nursing Science
- Politics and Gender
- Social and Cultural Anthropology with an Emphasis on Religions and Religious Movements

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

- Sociology
  - *Time of appointment:* following vacancy of the Professorship of Sociology (presumably as of 1 October 2024)

# Subject dedication of professorship:

• Social and Cultural Anthropology with a Focus on Migration *Time of appointment:* following vacancy of the Professorship of Social and Cultural Anthropology (presumably as of 1 July 2026)

# Subject dedication of professorship:

• Science and Technology Studies *Time of appointment:* following vacancy of the Professorship of Social Studies of Science (presumably as of 1 October 2026)

# Subject dedication of professorship:

 Environmental Anthropology *Time of appointment:* following vacancy of the Professorship of Material Culture and Consumption Studies (presumably as of 1 October 2027)

# Subject dedication of professorship:

• Development Studies from a Sociological Perspective *Time of appointment:* following vacancy of the Professorship of Development Sociology (presumably as of 1 October 2030)

# Subject dedication of professorship:

• Urban Sociology *Time of appointment:* following vacancy of the Professorship of Urban Sociology (presumably as of 1 October 2030)

# FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

# Subject dedication of professorship:

Science Communication

# Subject dedication of professorship:

• Critical Race Studies

# Subject dedication of professorship:

Computational Sociology

# Subject dedication of professorship:

• Authoritarian Politics

# Subject dedication of professorship:

• Artificial Intelligence in the Social Sciences

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Health and Sustainability
- Media and Communication History
- Migration, Citizenship, Identity
- Qualitative Social Research
- Visual Sociology

# 10.11.1 OBJECTIVES

Besides being an important part of human culture, mathematics plays a special role among the sciences as it provides a unified language for quantitative theories in many different fields. It trains logical thinking and contributes to developing critical approaches. The current inner development of mathematics as a scientific subject is, on the one hand, characterised by increasing specialisation, even within sub-fields. On the other hand, many of the major mathematical breakthroughs in the last years result from interactions between different areas of mathematics as well as other disciplines. One of the primary goals of the Faculty of Mathematics is to represent the broad scope of this science at the highest international level in research and teaching, while offering extensive services in research and teaching for other scientific disciplines.

Based on the key research areas that form part of strong international networks, the Faculty of Mathematics emphasises the importance of collaboration with applied sciences. The Faculty makes every possible effort to further intensify existing synergies with research groups in biology, physics, astronomy, computer science, data science, business and economics, as well as in the engineering sciences, and to provide and develop an attractive range of opportunities for them. The Faculty has set itself the goal of intensifying and expanding its current activities concerning the transfer of knowledge regarding collaboration with stakeholders in the public sphere, as well as with private-sector organisations, and areas such as medicine, the energy industry, banking and finance, the automotive industry and information technology.

The Faculty of Mathematics cooperates with other faculties of the University, with departments of TU Wien, the Medical University of Vienna and the Austrian Academy of Sciences (OeAW), making use of both synergies and complementarity. It is one of the objectives of the Faculty of Mathematics to intensify these cooperation agreements, and to create new ones.

The cooperation with the Faculty of Physics in the context of the Erwin Schrödinger International Institute for Mathematics and Physics (ESI) is of particular importance, as this institution enjoys an excellent reputation on an international level. The areas covered by the ESI include theoretical, experimental and computer-supported aspects of the sciences involved.

# 10.11.2 THEMATIC AREAS AND KEY RESEARCH AREAS

The Faculty has defined six key research areas, which represent the traditional focuses and strengths of the Faculty as well as the results of the continuous advancement of mathematics with regard to modern developments and the interaction with other academic disciplines. In addition to these, subject didactics/school mathematics, whose closeness to the scientific field of mathematics is of utmost importance for teacher education, is an important thematic area at the Faculty of Mathematics, which will be discussed in the chapter on the Centre for Teacher Education.

# LOGIC

Research in the key research area of logic, i.e. at the Kurt Gödel Research Center for Mathematical Logic, follows the tradition of Kurt Gödel, who between 1929 and 1931 proved his celebrated completeness and incompleteness theorems in Vienna, one of the most significant achievements of mathematical logic in the modern era. Gödel's work has been ground-breaking for the central fields of modern logic: set theory, model theory, computability theory and proof theory. Research in this area at present focuses mainly on set theory and model theory. Set theory provides both an axiomatic basis for the entire discipline of mathematics, as well as methods for the precise analysis of classification problems in mathematics (descriptive set theory). It has traditionally been closely linked with analysis, ergodic theory and topology. As the logic of mathematical structures, model theory has numerous important applications in algebra, number theory and analysis, and has, in recent decades, developed a pronounced geometric character. The area of logic also contributes to the teaching of theoretical informatics, which is rooted in mathematical logic and provides the fundamental basis for all digital technologies.

#### ARITHMETIC, ALGEBRA AND DISCRETE MATHEMATICS

The key research area of arithmetic, algebra and discrete mathematics comprises research groups in algebraic structures and group theory, number theory, algebraic geometry and commutative algebra and combinatorics.

Group theory is pursued mainly from a geometric and analytic point of view. Here, algebraic and probabilistic techniques are combined, for example, with approaches from mathematical physics. Modern methods of calculation and algorithms are another relevant part of this research area.

The Langlands programme is at the core of the research in the area of number theory. It is a continually expanding ensemble of deep conjectures and theorems that place different objects in arithmetic, geometry and analysis in relation to one another. The connecting element here is representation theory, which in turn includes important aspects of Lie theory and provides close links with algebraic geometry, group theory and combinatorics.

In algebraic geometry, the research focus is on projective varieties and fibrations and their coordinate rings, on moduli spaces, smooth as well as singular spaces, on enumerative geometry and on approximation techniques. Several research fields in this area permit overlaps with representation theory, combinatorics and number theory.

In the area of discrete mathematics, a broad spectrum of combinatorial themes is studied and developed, ranging from algebraic combinatorics to analytic combinatorics and graph theory. There are strong interrelations with algebra, number theory, and also with statistical physics.

# ANALYSIS, GEOMETRIC STRUCTURES AND MATHEMATICAL PHYSICS

In this research area, the methods – enabling numerous relations – of enumerative geometry and algebraic geometry, geometric representation theory, differential geometry, functional analysis, geometric calculus of variations, complex analysis, low-dimensional topology, spectral theory, theory of non-linear partial differential equations and dynamic systems are developed further, often with the aim to apply them to problems of geophysics, gravitational physics, quantum physics, string theory or fluid mechanics.

Regarding algebra, the focus is on higher-dimensional algebraic geometry and its relationship with combinatorics as well as to singularity theory and representation theory. In this area, for instance, fibred Calabi–Yau manifolds are constructed, which play a key role in string theory, or algebraic descriptions of moduli spaces are given, which are of great relevance in field theory. The area of complex analysis focuses on the properties of spaces of holomorphic functions and Cauchy-Riemann geometry. In addition, operators are studied by means of methods from the theory of functions, which provides links to harmonic analysis, control theory and signal processing and addresses problems of fluid mechanics.

In differential geometry, geometric structures and invariant differential operators and complexes are examined, where the representation theory of semi-simple Lie algebras plays a key role with regard to methodology. In the field of mathematical physics, the asymptotic behaviour of solutions of non-linear partial differential equations is studied, for instance for Yang-Mills models or wave equations in physical models in the context of quantum mechanics, fluid mechanics or continuum mechanics. Dispersive effects play a prominent role here, both in the context of the development of singularities and with regard to the stability of stationary configurations. Wave phenomena in oceans and in the atmosphere are modelled with non-linear partial differential equations and dynamical systems, and explained through new analytical findings. The geometry of spacetimes is examined by means of analytic and synthetic methods. Invariants of general relativity are linked and studied, with geometric variation problems at the level of the initial value problem for Einstein's equations. Here, strong interrelations with classical problems of differential geometry are apparent. In the field of low-dimensional topology, the focus is on the interaction of contact topology, quantum field theories and algebraic invariants of the Heegaard-Floer homology.

# BIOMATHEMATICS, DYNAMICAL SYSTEMS, FINANCIAL MATHEMATICS AND STOCHASTICS

This key research area comprises a wide range of topics of pure and applied mathematics with a common focus: the deterministic and stochastic dynamics of complex systems.

As large data sets from disciplines such as genomics and proteomics have been made available, biology has, to an increasing extent, become a quantitative science. Interpreting these data requires mathematical models for understanding individual cells and organisms in systems biology (e.g. reaction-diffusion dynamics) or populations and ecosystems in evolutionary biology and ecology (dynamics of allele frequencies through mutations, selection and genetic drift, or of populations through births, deaths and environmental interactions). The research topics in this area include cellular processes, metabolic networks, as well as models of biodiversity, adaptation and speciation.

The dynamics of complex systems are of great relevance not only in biology but also in many other areas of application such as physics, meteorology and economy. The mathematical research area of dynamical systems is aimed at understanding these dynamics, which are in most cases chaotic, i.e. render explicit calculation impossible. Ergodic theory examines typical time courses (in the sense of an invariant measure) in order to derive statistical statements from it, e.g. mixing rates or the central limit theorem.

Probability techniques play an important role in pure and applied mathematics and are of great social relevance. The typical objects in this field are often fractal: The challenge is thus to nevertheless understand them in terms of analysis and geometry. Research is carried out into how stochastic processes can be mapped into each other (stochastic mass transport) and how integration is possible with regard to such objects (stochastic analysis), and how physical systems can be described geometrically next to their critical points (random geometry). The methods that have been developed are applied, for instance, in the analysis of large data sets in the finance sector or in quantum field theory, where random geometries enable natural descriptions.

#### COMPUTATIONAL MATHEMATICS AND DATA SCIENCES

This key research area pools expertise from application-oriented mathematics, optimisation, numerics and data sciences and thus covers a wide range of disciplines in the field of computational mathematics. This enables the development of specific solutions to topical interdisciplinary problems, for instance in energy and environmental research, medicine, materials science and quantum chemistry. It thus has a bridging function between academic research and industry.

A current research topic is concerned with modelling imaging techniques in medicine (e.g. ultrasound tomography, optical coherence tomography or elastography) and with the construction of suitable reconstruction algorithms aimed at the non-destructive precise visualisation of internal body structures and thus enabling reliable diagnoses. This is achieved in close cooperation with partners from physics and medicine as well as industry.

The fields in which the development, analysis and numerical implementation of discrete and continuous-time models, as well as numerical algorithms for high-dimensional smooth and non-smooth optimisation problems can be applied include the optimisation of large energy networks, weather forecasts, signal processing in acoustics, the generation of images by means of generative adversarial networks, and modelling of political surveys.

Regarding the mathematical and algorithmic basis of machine learning, the focus is on aspects such as the reliability, stability as well as interpretability of modern deep-learning methods.

Here, uncertainty in current AI applications is analysed and quantified in mathematical terms. In addition, mathematical models are combined with modern data-driven methods in order to develop efficient algorithms for the computation of the ground state and energy of molecules or of topographic image reconstruction.

Time-frequency analysis goes back to the early stages of quantum mechanics and has developed into a mathematical theory of the phase space. Research in this area uses key results from this field, such as the uncertainty principle, in order to arrive at statements in different areas such as signal processing, statistical interference and stochastics.

Finally, the analysis of mathematical, physical and algorithmic aspects of complex multiple-particle systems in quantum mechanics provides the basis for the development of new materials and of quantum computers.

# APPLIED AND COMPUTATIONAL PARTIAL DIFFERENTIAL EQUATIONS

Partial differential equations (PDEs) play an essential role in modelling complex phenomena, and the University of Vienna can look back on a long research tradition in this field. The key research area of applied and computational partial differential equations covers a wide range of fields, from modelling and analysis to numerics and simulation. Its goal is to contribute to understanding physical, biological and technological models and to offer efficient solutions for their simulation and validation.

A major part of research in this area focuses on methodology, for which many different PDE technologies are used. At the theoretical level, it applies variational analysis, evolution equations, kinetic theory, geometric analysis and stochastics. Regarding the numerics of PDEs, methods of statistical mechanics and discrete particle models, phase-space discretisation, finite-element and virtual-element methods, as well as adaptive and data-driven numerical methods are used.

This key research area focuses on many different applications, from the nano-scale of atoms and molecules to the extremely large scale of cosmology. It examines crystals, cells and bacteria as well as structures and patterns in biology, in mechanics and in electromagnetism, and also in meteorology. Numerous applications are studied, including atmospheric flow models, emerging phenomena in biology, medicine and the social sciences, as well as multiphysics effects in molecular systems, solids and fluids, and models of astrophysics. Research into these applications will contribute to advancements in these areas, and expert knowledge on PDEs can be used for providing new insights into, and solutions to, application-related problems.

# 10.11.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Algebra
- Algebra and Number Theory
- Algebraic Geometry
- Analysis of Partial Differential Equations
- Applied Mathematics and Modelling
- Applied Mathematics with an Emphasis on Optimisation
- Combinatorics
- Complex Analysis
- Computational Science Mathematical Modelling and Algorithmics in Application Areas
- Data Science in Astrophysics (joint appointment with the Faculty of Earth Sciences, Geography and Astronomy)
- Discrete Mathematics with Special Emphasis on Combinatorics
- Dynamical Systems
- Dynamical Systems in Biomathematics
- Financial Mathematics
- Global Analysis/Differential Geometry
- Harmonic Analysis
- Mathematical Data Science

- Mathematical Logic Taking into Account the Foundations of Computer Science
- Mathematics
- Mathematics
- Mathematics
- Mathematics
- Mathematics Applied Analysis, Mathematical Physics
- Mathematics and Biology (80 %; 20 % at the Centre for Molecular Biology)
- Mathematics with Special Emphasis on the Didactics of Mathematics and Computer Science (joint appointment with the Centre for Teacher Education)
- Numerics of Partial Differential Equations
- Partial Differential Equations
- Quantitative Modelling of Biological Networks (joint appointment with the Centre for Molecular Biology)
- Quantum Algorithms (joint appointment with the Faculty of Physics)
- Stochastics

# 10.11.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

Computational Partial Differential Equations

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

# Subject dedication of professorship:

• Applied Analysis

*Time of appointment:* following vacancy of the Professorship of Mathematics – Applied Analysis, Mathematical Physics (presumably as of 1 October 2025)

# Subject dedication of professorship:

# Computational Science *Time of appointment:* following vacancy of the Professorship of Computational Science – Mathematical Modelling and Algorithmics in Application Areas (presumably as of 1 October 2029)

# Subject dedication of professorship:

 Didactics of Mathematics
 *Time of appointment:* following vacancy of the Professorship
 of Mathematics with Special Emphasis on the Didactics of
 Mathematics and Computer Science
 (presumably as of 1 October 2029)

# FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

# Subject dedication of professorship:

• Mathematics for Climate Research

# Subject dedication of professorship:

• Mathematics of Quantum Systems

# Subject dedication of professorship:

• Mathematics for the Connected Society

# Subject dedication of professorship:

• Computational Medicine (joint appointment with the Medical University of Vienna or the Faculty of Computer Science depending on the advertising result)

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Algebra and Representation Theory
- Didactics of Mathematics
- Discrete Mathematics
- Discrete Mathematics and Theoretical Computer Science
- Geometry and Topology

# 10.12 Faculty of Physics

# 10.12.1 OBJECTIVES

Physics studies the fundamental laws of nature that determine the behaviour of matter, energy and information. It examines phenomena at many different scales, from sub-atomic particles to the largest structures of the universe. Its findings provide the basis for numerous other sciences. As a driver of applications and technological progress, physics influences our daily lives in manifold ways.

Based on a research profile that is well-defined in terms of topics and methodologies, the Faculty of Physics is oriented towards excellence and top-level recognition at the international level in all its key research areas.

The Faculty's research activities are primarily aimed at acquiring knowledge regarding fundamental problems in physics. In line with the University's innovation strategy, the Faculty is also open to application-oriented research and technological questions and plays an active role in the establishment of Christian Doppler Laboratories and spin-off enterprises. It is also open to cooperation with the business world. Its collaboration with the Faculty of Mathematics, in the context of the Erwin Schrödinger International Institute for Mathematics and Physics (ESI), is of particular importance, as this institution enjoys an excellent reputation at the international level.

Students in the bachelor's programmes at the Faculty of Physics have access to a diversified, sound education that encourages independent thought and action, and makes it possible for them to change to other fields of science or to professional life.

The Faculty attaches great importance to their integration into current research at the earliest possible stage. For students in the bachelor's and master's programmes, the Faculty offers a thorough education covering the entire field of physics, which enables graduates to be excellently positioned in international research or in the private sector. Physics as a teaching subject also plays an important role at the Faculty.

# 10.12.2 KEY RESEARCH AREAS

# QUANTUM OPTICS, QUANTUM NANOPHYSICS AND QUANTUM INFORMATION

The key research area of quantum optics, quantum nanophysics and quantum information investigates the foundations of quantum physics and its technological applications. It is oriented towards the theoretical description, preparation, manipulation, detection and application of complex quantum states with photons, electrons, atoms, molecules, clusters or nanoparticles, as well as precision metrology for determining fundamental constants and forces, and verifying fundamental concepts of space and time. Technologically, the focus is on new methods for cooling and coupling massive systems, new methods for controlling quantum wave functions, as well as the generation of entangled many-body systems of light and matter. Further theoretical and experimental research activities are concerned with the interface between quantum physics and the macroscopic world, gravitational theory, thermodynamics, chemistry and biology. This area overlaps with photonics, spectroscopy, nanophysics, electron microscopy and mass spectroscopy.

Applications relevant for society are new methods for quantum information processing, quantum sensors, quantum metrology and quantum imaging. New quantum algorithms, simulation schemes, communication protocols and new photonic quantum hardware contribute to the expansion of quantum information technology. Quantum sensors for fields, forces and material properties are realised with laser-cooled nanoparticles, matter waves and nano-structured superconductors.

# CONDENSED MATTER PHYSICS AND MATERIALS SCIENCE

The key research area of condensed matter physics and materials science comprises experimental, theoretical and computational research into novel functional materials, nano- and microstructured materials and low-dimensional materials, as well as soft matter and biophysics. Here, the development of new experimental and computational methods that are used for both basic research and new technologies plays an important role. This includes, for instance, new technologies for spectroscopy and microscopy, as well as innovative theoretical and improved statistical methods. They are, for instance, relevant for data transmission, sensor technology, opto-electronics and biotechnology.

The development of new materials and technologies can contribute to ecological solutions and help reduce the causes and effects of climate change.

# THEORY OF FUNDAMENTAL INTERACTIONS

The key research area of the theory of fundamental interactions examines the mathematical and phenomenological properties of matter and their interactions, as well as the spacetime structure. The fundamental interactions of electromagnetism, strong and weak interaction, as well as gravitation, from the smallest to the largest measurable distances, are studied. One focus is on theoretical models to enable high-precision predictions for collider experiments such as the Large Hadron Collider, and on the study of dark matter and elementary particles such as Higgs bosons, neutrinos and heavy quarks. In the context of general relativity, black holes and cosmological singularities, as well as theoretical aspects of gravitational waves and the evolution of the universe are examined. In addition, the mathematical foundations of quantum field theory are studied, and approaches to the unification of quantum theory and gravitation are pursued - for instance, in the context of generalised theories of gravitation or string theory.

Our physical conception of the world is based on the theoretical understanding of the fundamental properties of time, space and matter. It provides the foundation for future discoveries and can pave the way for further research and applications.

# PHYSICS AND THE ENVIRONMENT

The key research area of physics and the environment is concerned with basic research into physics and explores application-oriented questions concerning natural or human-influenced environments. It studies phenomena in a wide range of length scales and timescales - for instance, the interaction of a small number of atoms in the femtosecond range, the formation and change of aerosol particles from the nanometre to the micrometre scale, as well as complex atmospheric and oceanic processes, on timescales ranging from days to centuries. One focus is on the development of new instruments and methods, which are often seminal and enable pioneer work. This includes, for instance, the online measurement of microplastics in the atmosphere, high temporal resolution measurements over the entire aerosol size range, and new methods for studying clouds, as well as isotope-specific examinations of actinides in the environment and radioisotope measurement by means of laser-ion interaction.

This research is of great relevance for meeting social challenges such as global climate change and for questions regarding sustainability, health and environmental protection.

# 10.12.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Aerosol and Cluster Physics
- Computational Physics
- Computational Physics
- Computational Physics
- Computational Quantum Mechanics
- Condensed Matter Physics
- Didactics of Physics (joint appointment with the Centre for Teacher Education)
- Experimental Quantum Optics
- Experimental Soft Matter Physics
- Gravitational Physics
- Isotope Physics
- Low-Dimensional Transport and Nanotechnology
- Materials Physics
- Mathematical Physics

- Multi-Scale Computational Physics
- Quanta and Solids
- Quantum Algorithms (joint appointment with the Faculty of Mathematics)
- Quantum Foundations and Quantum Information Theory
- Quantum Information on the Nanoscale
- Quantum Materials Modelling
- Quantum Nanophysics
- Solid-State Physics
- Theoretical Physics in the Field of Particle Physics and Astroparticle Physics

# 10.12.4. SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

# DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Experimental Quantum Physics *Time of appointment:* funding via a vacant professorship at the Faculty (presumably as of 2024)

# Subject dedication of professorship:

• Theoretical Gravitational Physics *Time of appointment:* following vacancy of the Professorship of Gravitational Physics (presumably as of 1 October 2025)

# Subject dedication of professorship:

• Experimental Astrophysics (cooperation with the Faculty of Earth Sciences, Geography and Astronomy with regard to advertising and recruitment) *Time of appointment:* following vacancy of the Professorship

of Isotope Physics (presumably as of 1 October 2024)

# Subject dedication of professorship:

• Experimental Quantum Mechanics *Time of appointment:* following vacancy of the Professorship of Quantum Nanophysics (presumably as of 1 October 2030)

# Subject dedication of professorship:

- Computational Physics
  - *Time of appointment:* following vacancy of the Professorship of Computational Physics (presumably as of 1 October 2030)

# FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

Computational Material Discovery

#### Subject dedication of professorship:

• Materials for Energy Conversion and Storage

# Subject dedication of professorship:

• Climate Modelling

#### Subject dedication of professorship:

• Artificial Intelligence in the Natural Sciences

#### Subject dedication of professorship:

• Dark Matter Theory and Physics Beyond the Standard Model

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Climate Modelling
- Condensed Matter (Microscopy)
- Experimental Condensed Matter
- Physics
- Theoretical Physics

# 10.13.1 OBJECTIVES

Chemistry is a core science that deals with the structure, synthesis and function of organic as well as inorganic nature, thereby reaching far into areas of life sciences and medicine. On this basis, it is also involved in the development of substances and materials in a broad sense. It contributes to the development of pharmaceutical drugs and medical devices, including the development of innovative materials to ensure the availability of raw materials and energy resources for our future, based on sustainable processes. Chemistry is thus of key economic and social relevance.

The Faculty is committed to basic and application-oriented research, and consequently, emphasis is placed on the development of the key research areas of (i) bioanalysis and environmental analysis, (ii) biological and medicinal chemistry, (iii) functional and sustainable materials chemistry, (iv) computational chemistry and biomolecular simulation, (v) food chemistry and physiological chemistry, and (vi) synthesis and catalysis, as well as on a broad education in chemistry. The Faculty of Chemistry is essential for the demands of the chemical industry, one of the largest and most important industrial sectors in Austria. Beyond that, chemistry is the prerequisite for a profound understanding of other disciplines in the natural and life sciences. In this context, the Faculty is responsible for the sound education of a large number of students in the bachelor's curricula of related degree programmes. It endorses the goal of increasing the number of STEM graduates by 20 %, in line with the Austrian Higher Education Plan and the Austrian University Development Plan, provided that the necessary budget is made available.

There is a basic difference between the degree programme of the University of Vienna (degree programme in Chemistry) and that of TU Wien (degree programme in Technical Chemistry); at the University of Vienna, the curricula at all levels are, both theoretically and practically, more strongly oriented towards basic science and scientific methods, as well as towards the links between chemistry and the biosciences, including renewable and sustainable materials. In addition, the Faculty of Chemistry is particularly committed to the education of a large proportion of Austria's chemistry teachers. During the bachelor's programmes, it makes sense to keep the degree programmes at the University of Vienna and TU Wien separate, due to the total number of students and differences in orientation and technical equipment. During the master's programmes, however, it is possible to use helpful synergistic effects in a joint curriculum of materials science/materials chemistry. Here, students of the University of Vienna can profit from the technological orientation of TU Wien, while students from the latter benefit from the approaches that are promoted at the University of Vienna.

Cooperation with the University of Natural Resources and Life Sciences is also relevant with regard to both science and teaching. Cooperation in the field of analysis, e.g. proteomics and metabolomics and the technological aspects of food chemistry, as well as intensive cooperation in the area of biomolecular simulation are particularly worthy of mention. These are cooperation areas from which the University of Vienna is benefiting, and in turn provides profound expertise in the synthetic and analytical areas. This cooperation has recently resulted in the establishment of the new master's programme in Green Chemistry, which is run jointly with the University of Natural Resources and Life Sciences and TU Wien. It complements the existing master's programmes at the University of Vienna and offers great development potential for the future. Bioactive compounds and innovative tumour therapeutics based on developments in, and results of, basic research at the University of Vienna have brought about interesting applications in the field of medicine, and have already led to extensive cooperation with the Medical University of Vienna and at the international level. The Joint Metabolome Facility, which is run together with the Medical University of Vienna, will permit better insight into patients' metabolome and thus a conclusive interpretation of the course of diseases and the successful optimisation of treatment, particularly regarding chronic diseases such as cancer, diabetes and lipid metabolism disorders.

# 10.13.2 KEY RESEARCH AREAS

The new Joint Applied Medicinal Radiochemistry Facility, which is also run in cooperation with the Medical University of Vienna, will provide the basis for research into radioactive pharmaceuticals (radiotracers), which will be used in personalised nuclear medicine for diagnoses by means of molecular imaging (PET, SPECT) and for radiotherapy for various diseases, particularly in oncology. The scientific alignment of research performed by the University of Vienna, TU Wien, the University of Natural Resources and Life Sciences as well as the Medical University of Vienna offers a significant potential for joint development.

The interdisciplinary cooperation with the Centre for Microbiology and Environmental Systems Science has been continued. Here researchers collaborate at the interface of chemistry and microbiology, in the areas of microbiome research, environmental research, bioinformatics and antitumour metal compounds.

In the area of environmental science, the Faculty of Chemistry cooperates, on a broad basis, with all science faculties, as well as with several humanities faculties.

The core research areas of the Faculty of Chemistry are oriented towards basic research and often have a methodological focus. The corresponding research activities enabled by the experimental and technological infrastructure at the Faculty permit competitiveness at the international level. The experimental cornerstones of this research include molecular structural analysis, quantitative and qualitative trace analysis, bioanalytics for exploring molecular mechanisms, molecular interactions in dynamic processes, and, not least, surface and materials analyses. The key research areas have seen dynamic development. This flexibility, which also permits the introduction of new research areas as a basis for future key research areas, will continue to be maintained. The following key research areas have been established:

#### **BIOANALYSIS AND ENVIRONMENTAL ANALYSIS**

In view of the reproducibility crisis in the biosciences, analysis has played an increasingly important role. Bioanalysis and environmental analysis focus on the development of accurate and precise methods that enable the exploration of complex systems at the molecular level. Due to the strategic development of the Faculty, highperformance research will be enabled, covering comprehensive analytic expertise – from the optimisation of experimental designs to specimen preparation, development and validation of methodologies, as well as to robust interpretation strategies for large data volumes. A wide range of strategies are being developed and applied to analyse proteins, metabolites, lipids, nucleic acids and element species. One focus is on the development of separation procedures and mass spectroscopic analyses, which are also used for imaging approaches.

Bioanalysis and environmental analysis are thus concerned with continuous advancement in the areas of proteomics, metabolomics, lipidomics, metallomics, epigenetics, human biomonitoring, exposome research and imaging technologies. Novel highly-selective reporter strategies pave the way for the establishment of functional proteomics, peptidomics, signalling lipidomics, single-cell analyses, nucleic acid analysis, as well as comprehensive multiomics approaches by combining the above areas. In addition, the quantitative determination of the above classes of analytes is improved continuously, and simplified by the preparation of standards.

Computational data analysis strategies and network modelling are used to expand the possibilities of these technologies and increase throughput. Identifying and quantifying thousands of molecular components per single specimen, as well as characterising the relevant interactions depending on specific influencing factors will, in the future, bring about numerous new insights into the complex, dynamic feedback mechanisms that control the functioning of biomolecules. Here, interdisciplinary and transdisciplinary research activities are pursued to provide basic approaches to solutions in order to find answers to topical questions of social relevance regarding health, the environment and food. In this context, the leading role of the Faculty in the generation of multiomics data sets is particularly worthy of mention. This is aimed at conducting large studies to generate high-quality quantitative data which - due to innovative scalable analytics - are unique with regard to quality and quantity. These will be made available to the international research community through open-source databases and can thus themselves become objects of research. In the context of the pan-European ESFRI-EIRENE network, Exposome Austria aims to identify the 'chemical stress' to which the population is exposed in order to create a sustainable data basis that makes it possible to relate negative environmental influences to diseases. In addition, a unique human molecular map that includes quantitative multiomics data is being drawn up in a national network.

# **BIOLOGICAL AND MEDICINAL CHEMISTRY**

This key research area comprises the identification, isolation, design, synthesis and characterisation of complex natural products and active ingredients, from small bioactive compounds to biopolymers, as well as their modification and structure/function studies in organic, inorganic, biophysical, analytical and biological chemistry.

Important classes of compounds on which research is focusing include low-molecular metal coordination compounds and clusters, microbial metabolites, peptides, proteins, nucleic acids and functionalised particles to be used as therapeutics and for diagnosis, and which have already been developed as far as the stage of clinical trial in patients. Through a specific combination with tumour-targeting strategies, immunotherapy approaches and state-of-the-art methods for analysing distribution in tissues, as well as the use of radioactive isotopes suitable for imaging and treatment in nuclear medicine, innovative cancer treatment strategies are being developed in close cooperation with the Medical University of Vienna. Further treatment-related areas of application include the development of highly selective antibiotics against pathogens causing microbial infectious diseases, pain management, gastrointestinal diseases, autoimmune diseases and neurodegeneration.

New methods for the selective chemical modelling and synthesis of peptides and proteins enable molecular probes that would otherwise not be accessible. They are used for the analysis of processes relevant for diseases, as well as for the identification of target molecules at the molecular level. In addition, these methods can be used for designing completely synthetic molecules with properties similar to those of antibodies, for developing improved vaccines and for improving the absorption of therapeutics.

For basic structure/function studies, special amino acid precursors and components with specific isotopic labelling patterns and posttranslational modifications are used, which are specifically incorporated into peptides and proteins. This makes structure studies by means of NMR and crystallography easier, and the functions of different proteins can be presented at atomic resolution. The study of improved conditions for crystallisation by using polyoxymetalates as crystallisation additives represents a particular link between biological and inorganic chemistry and, in fact, enables crystallisation – and thus the examination of plant metalloproteins. The development of faster and more sensitive NMR analysis methods opens up new ways of understanding physiological processes such as biomineralisation, protein-protein interactions and metal-protein interactions. All in all, the key research area of biological and medicinal chemistry thus contributes to understanding the foundations of life and to developing new therapeutics and materials that can improve global health. Approaches to solutions in the area of biomimetic chemistry can help to overcome fundamental challenges such as the climate crisis and environmental crises.

#### FUNCTIONAL AND SUSTAINABLE MATERIALS CHEMISTRY

Functional materials are an essential foundation for our modern technology-based society: their effects extend over manifold fields such as the environment, drinking water, mobility, electronics, medicine, as well as the supply of energy and raw materials. In view of these challenges, the Faculty of Chemistry studies basic and application-oriented aspects of polymers, composites, as well as ceramic, semiconductor and molecular materials, and materials for energy storage. What is relevant here is the specific structuring of these materials, starting from a variety of basic materials based on their functionality, with a particular focus on thermoelectric, catalytic and mechanical properties. Special attention is also paid to the efficient use of the starting materials to obtain the desired functional target products: This avoids waste and minimises the use of energy. Renewable raw materials also play an important role as starting materials (green chemistry). Here, manifold synthesis strategies (bottom-up and top-down, catalysed and non-catalysed) and characterisation methods are applied. Research in this area includes studies of the synthesis of solid and soft materials and their components. These materials can be non-porous or porous, with structural sizes ranging from sub-nanometre to macroscopic dimensions. What is also essential is, of course, the fundamental understanding of material properties and interactions within them and at interfaces, as well as their environment. In addition to the determination of physical and chemical as well as thermodynamic properties of materials, their potential application is a further strong driver of the Faculty's research activities, which range from innovative and renewable (starting) materials to catalysis and molecular identification. Consequently, myriad links to other key research areas at the Faculty and beyond are apparent.

The topics of sustainability (green chemistry), renewable energy, resource and waste management, as well as the circular economy will be focuses of future research. In order to attain these goals, the scientists at the Faculty endeavour to develop modern catalysts, improve the exploitation of biomass and waste (taking 'design for recycling' into account), and design new materials and procedures for molecular identification. Energy storage and energy conversion will play a more important role in the future, as will the development of modern analysis technologies to enable a better understanding of the mechanisms that are of key relevance for optimisation and implementation.

# COMPUTATIONAL CHEMISTRY AND BIOMOLECULAR SIMULATION

Computer-based simulations constitute an integral part of modern chemistry. This key research area is an independent area of research with its own methods and applications, and a field of leading-edge research in its own right. Simulations continue to play an important role in complementing and supporting the experimental disciplines. The current developments in the areas of big data and artificial intelligence and, in the latter case, particularly regarding machine learning, as well as in the area of quantum computing, have opened up new outlooks and research areas.

Methods of quantum chemistry and molecular reaction dynamics are applied to gain insights into the properties of molecules and materials, as well as their photochemistry. In order to obtain a better understanding of structures, spectroscopic data and reactivity of chemical compounds, programme packages of quantum chemistry are applied, and developed in cooperation with international colleagues. The use of high-precision methods to calculate electronic structures, and the development of new methods in the area of molecular reaction dynamics, as well as links between the two areas, are aimed at obtaining fundamental insights into chemical processes and structure-function relationships, and at predicting them in quantitative terms, in molecules, biological systems and materials. For this purpose, algorithms of machine learning for the efficient prediction of molecular properties are used. Research into novel materials for energy conservation and storage is particularly important. The above focuses are complemented by methodological basic research regarding the use of quantum computers for addressing chemical problems.

Biomolecular simulation is concerned with the structure, dynamics and energetics of biopolymers at atomic resolution, which enables the interpretation and prediction of macroscopic properties. The focus is on studying the interactions between biomolecules with (non-)aqueous solvents by means of computational spectroscopy and the efficient calculation of free energy differences such as, for instance, binding affinities for pharmaceutical research. Hybrid interactions that include both molecular mechanics of quantum mechanics and methods of machine learning are used increasingly often besides traditional additive and polarisable force fields. The necessary theoretical and methodological basis is being constantly expanded.

Modelling the structures of biopolymers and their functions in cellular networks is another focus of research. In particular, secondary and tertiary structures of RNA molecules are predicted using highthroughput data and modern deep-learning approaches, and methods for designing functional RNA molecules are developed. Methods and algorithms of biochemistry and cheminformatics are developed and used for analysing different types of networks such as reaction, interaction or gene regulatory networks. The development of new algorithms benefits from synergies with the Faculty of Computer Science.

# FOOD CHEMISTRY AND PHYSIOLOGICAL CHEMISTRY

Basic and application-oriented research and teaching in the areas of food chemistry and physiological chemistry concentrate on identifying functional food ingredients, and on exploring molecular mechanisms of these components, as well as their relevance for the quality and safety of food and for human health.

Based on these focuses, new synergies concerning food safety, toxicological assessment and biofunctionality can develop, for instance, with the Medical University of Vienna, the University of Natural Resources and Life Sciences, TU Wien, the Environmental Agency Austria, and numerous cooperation partners in private business. The combined expertise of food chemistry and food toxicology - which, in Austria, is available only at this location - enables cooperation particularly regarding the interference of food ingredients with active pharmaceutical ingredients, as well as contaminant research and the topical fields of the toxicological assessment of chemical mixtures and exposome research. In addition, the area of green chemistry is currently being developed, for instance, with regard to exploring innovative sources of food and bioactive ingredients. Synergy in the area of physiological chemistry exists, and is developing, in connection with aspects of health and nutritional physiology concerning flavour-active and aroma-active compounds, lipid oxidation products, as well as other significant ingredients relevant for food quality.

With respect to food safety, food chemistry examines the cellular mechanisms of action of a wide variety of ingredients (bioactive components, food and environmental contaminants, nanoparticles), for instance in the human digestive system, using a wide range of biochemical, molecular-biological, toxicological, biophysical and analytical techniques, which perfectly complement each other in an innovative approach to systems toxicology.
Physiological chemistry focuses on the identification and characterisation of bioactive food ingredients as isolated compounds and as compounds in food matrices, giving special consideration to food processing. The proof of bioactivity, as well as the exploration of its basic mechanisms, is established via studies of isolated cells and within the framework of human intervention studies using various food matrices, for which systems biology approaches are also pursued. The techniques applied record the bioavailability of the target compounds by means of high-resolution mass spectroscopy, as well as their bioactivities at the levels of gene regulation and protein regulation by means of transcriptomics and proteomics, the impacts on metabolic profiles by means of metabolomics as well as receptor interactions, using, for instance, heterologous CRISPR-Cas geneedited cell models.

The research activities in the areas of food chemistry, food toxicology and physiological chemistry within the University of Vienna also enable perfect cooperative links within the Faculty of Chemistry and with the Faculty of Life Sciences, the Faculty of Physics, and the Centre for Microbiology and Environmental Systems Science. In addition, strong national and international cooperation schemes with universities and partners in the business world are being further intensified.

### SYNTHESIS AND CATALYSIS

In the key research area of synthesis and catalysis, the focus is on research into new molecules and materials, as well as the development of effective catalysts in order to respond to the challenges of our time. The activities in this key research area comprise synthetic (bio-)organic chemistry, isotope labelling and examination of the structure and dynamics of complex molecules by means of spectroscopic methods. In this context, topics such as environmental protection, sustainability, state-of-the-art technologies and innovative materials play a particularly important role. Future research in this field will be oriented towards the synthesis of bioactive natural products, pharmaceuticals and fine chemicals by means of new synthetic and catalytic methods, taking atom-efficient aspects of green chemistry into account.

Cooperation and network-building are of great importance to this key research area. The researchers collaborate closely with the Faculty of Life Sciences (pharmacy); further cooperation also exists with the Faculty of Physics (electronic material properties), the OeAW (Institute for Quantum Optics and Quantum Information – Vienna), as well as the broad collaboration with TU Wien (applied synthetic chemistry) and the University of Natural Resources and Life Sciences (chemistry and biotechnology), particularly regarding green chemistry (teaching and research).

Great importance is attached to contributing to the public relations activities of the University of Vienna, for instance through regular media presence, interviews, visits of schools and events.

Interactions with the Association of the Austrian Chemical Industry (FCIÖ) are of particular relevance as they also provide a platform for future impact on the business world brought about by the research in this area. A key goal is to enter into cooperation with institutions of applied research and with enterprises in order to generate patents and take part in the establishment of start-ups.

## 10.13.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. In addition to the professorships listed, several professors from the Centre for Microbiology and Environmental Systems Science maintain links with the Faculty of Chemistry. These professors with `bridging functions' are not enumerated here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Analytical Chemistry
- Analytical Chemistry
- Biochemical Modelling (joint appointment with the Faculty of Computer Science)
- Biofunctionality of Food
- Biological Chemistry
- Biophysical Chemistry
- Chemical Bioinformatics Network Analysis
- Chemical Catalysis
- Computational Chemistry Theoretical Chemistry/Scientific Computing

- Computational Mass Spectroscopy
- Computational Structural Biology
- Didactics of Chemistry (joint appointment with the Centre for Teacher Education)
- Environmental Chemistry
- Food Chemistry
- Inorganic Chemistry
- Inorganic Chemistry
- Microbial Biochemistry (joint appointment with the Centre for Microbiology and Environmental Systems Science)
- Organic Chemistry
- Organic Structural Chemistry
- Organic Synthesis: Natural Products, Methods
- Physical Chemistry
- · Separation Processes and Bioanalytics
- Synthetic Materials Chemistry
- Theoretical Chemistry

## 10.13.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

• Didactics of Chemistry (cooperation with the Centre for Teacher Education with regard to advertising and recruitment)

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

## Subject dedication of professorship:

• Inorganic Chemistry *Time of appointment:* following vacancy of the Professorship of Inorganic Chemistry (presumably as of 1 October 2024)

## Subject dedication of professorship:

• Food Chemistry *Time of appointment:* following vacancy of the Professorship of Food Chemistry (presumably as of 1 October 2026)

## Subject dedication of professorship:

Bioinformatics and Chemoinformatics
 *Time of appointment:* following vacancy of the Professorship
 of Biochemical Modelling (presumably as of 1 October 2030)

## Subject dedication of professorship:

Biophysical Chemistry

*Time of appointment:* following vacancy of the Professorship of Biophysical Chemistry (presumably as of 1 October 2030)

## Subject dedication of professorship:

 Physiological Chemistry
 *Time of appointment:* following vacancy of the Professorship
 of Biofunctionality of Food (presumably as of 1 October 2030)

## FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

Subject dedication of professorship:

• Green Chemistry

## Subject dedication of professorship:

• NMR Technology

## Subject dedication of professorship:

• Electrochemistry

#### Subject dedication of professorship:

• Microfluidics in Chemistry

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- · Data Science in Mass Spectrometry-Based Omics
- Omics Technologies

## 10.14 Faculty of Earth Sciences, Geography and Astronomy

## 10.14.1 OBJECTIVES

Research and teaching at the Faculty of Earth Sciences, Geography and Astronomy focus on Earth and its geosphere, hydrosphere, atmosphere, biosphere and anthroposphere, as well as on the cosmos with its galaxies, stars and planets. This is aimed at enabling better insights into the system of human beings, the environment, the Earth and the cosmos in its development, its complex interdependencies and its present dynamics, and to provide a sound basis for tackling grand societal challenges of our time.

In this regard, the Faculty of Earth Sciences, Geography and Astronomy focuses on fundamental questions of our existence. How have galaxies, stars and planets formed? How do the endogenously driven global dynamics of our planet, and exogenous astronomical parameters interact and control the environmental conditions on Earth? How can forecasts of incidents such as earthquakes, volcanic eruptions, mass movements or impacts of cosmic bolides be improved? How has the diversity of life and of ecosystems evolved throughout Earth's history and responded to changes in life conditions? How can natural resources be used in a sustainable manner? How does humankind influence the environment, and what implications do anthropogenic changes of the environment have for society? What are sustainable and resilient economic and settlement structures of the future? The answers to these questions are of key relevance for a rational analysis of the grand societal challenges and for addressing the Sustainable Development Goals of the United Nations as guidelines for responses to climate change, finite natural resources, water and air pollution, loss of biodiversity, the challenges associated with the necessary economic and societal transformations, resourcedriven migration and population dynamics.

The expertise from diverse disciplines available at the Faculty makes it possible to pursue approaches of natural sciences as well as those based on the social sciences, and thus to contribute to an holistic view and to explore questions concerning society as a whole in the context of disciplinary, inter- and transdisciplinary research. The scientists at the Faculty are engaged in international top-level research and thus ensure the visibility of their disciplines. The Faculty takes part in large multinational research projects focusing on astronomical observations, Earth observation and environmental monitoring. It also runs analytical laboratories and measuring facilities as well as core facilities and special focus facilities – with impacts often extending far beyond the Faculty. Here, the Faculty makes intensive use of the new digital means in the field of natural as well as social sciences.

The diversity of disciplines pooled at the Faculty and the resulting extensive methodological and disciplinary expertise makes the Faculty attractive for researchers and students from all over the world. The profile of the Faculty, in which the human-environment and Earth-cosmos system plays a prominent role, will be enhanced with regard to both the individual disciplines at the Faculty and a holistic approach. Based on its existing strengths, the Faculty aims to advance the research in its disciplines at the highest international level. This will make it possible to pursue further interdisciplinary and transdisciplinary approaches in order to foster research with direct relevance for society.

The Faculty endeavours to expand its measures aimed at integrating the existing disciplinary expertise into systemic approaches across different disciplines in research and teaching, to intensify its collaboration with other faculties/centres and organisations, and to further enhance internationalisation. Here, the participation in multinational research programmes and its positioning in international top-level research are of key relevance. At the same time, the Faculty's research infrastructure and methodological competence will be pooled, and made visible and widely accessible within the Faculty and beyond. The factors that play a significant role here are the digital opportunities and the professionalisation in the use of large data volumes, which are generated – in unprecedented intensity and quantity – in the context of space, Earth and ecosystem observation, by means of its in-house analytical instruments and

## 10.14.2 THEMATIC AREAS AND KEY RESEARCH AREAS

as the results of numeric simulations. In view of the dynamic development of data availability, the opportunities offered by data science are specifically taken into account at the Faculty. The research areas covered by the Faculty are grouped into four thematic areas: cosmos, Earth, environment and anthroposphere. These areas are interrelated in many respects and are, as such, not studied in a mutually exclusive way at the Faculty of Earth Sciences, Geography and Astronomy. Covering them permits the definition of large, overlapping topics that represent the mission of the Faculty.

The thematic area cosmos aims to understand the origin, formation and evolution of stars, galaxies and planets. By means of groundbased and space-based astronomical observational instruments, and supported by data science analyses as well as computer simulations using high-performance computers, this thematic area examines the physical and chemical processes that since the origin of the universe have led to the formation of galaxies, stars and planets. The search for our cosmic origin is the key to understanding the Earth as part of a planetary system that is exposed to cosmic incidents that may affect life on Earth. Research on exoplanets as references for possible development paths of planets similar to Earth provides links to the earth sciences and atmospheric sciences at the Faculty.

The goal of the thematic area Earth is to arrive at a more profound understanding of the evolution of Earth, its internal structure and its habitability over Earth's history, up to factors that – interacting with anthropogenic influences – determine its current environmental conditions. For this purpose, phenomena such as plate tectonics, volcanism, mountain building and metamorphism, weathering, erosion, sedimentation and lithification are studied in temporal and spatial resolution, and their interactions as well as feedbacks to the evolution of the atmosphere and the climate are examined. The links with biological processes and research into the evolution of ecosystems and organisms – in cooperation with other faculties and centres of the University of Vienna – are an integral part of the research activities in this field. A specific feature of this thematic area is its complexity in terms of time and space, as well as the comprehensive analysis, across different scales, of global, regional, meso-scale, micro-scale and nano-scale structures and of processes extending over geological time scales down to fractions of a second.

Research in the thematic area environment is aimed at a better understanding of physical, chemical and biological processes in the atmosphere, hydrosphere, pedosphere and biosphere, and of the complex interactions between natural and anthropogenic influences and their consequences. Here, the focus is on the reconstruction of environmental factors in the geological past, based on the analysis of geological archives, the survey and assessment of the current environmental dynamics by means of long-time monitoring of environmental factors, as well as on forecasts based on computer simulation of future development scenarios.

The researchers at the Faculty examine environmental developments in the context of meteorological and climatological influences, the surface processes linked with them, as well as the dynamics driven by endogenous processes, and also appraise the impact of anthropogenic factors. The Faculty endeavours to contribute to tackling the grand societal challenges by clarifying fundamental facts of the natural and social sciences and by enabling approaches to comprehensive solutions.

The thematic area of Anthroposphere aims to understand how human activity taking place in space and time shapes the environment while being, in turn, influenced by the environment.

At the Faculty, economic, demographic, technological and ecological changes are studied at different levels, particularly with regard to their spatial patterns and dynamics. Spatial information is structured with approaches of data science and complements the data generated by means of qualitative methods. This provides the basis for analysing economic and societal transformation processes, spatial planning, urban development and migration dynamics, and is aimed at achieving a better understanding of the changes caused by socio-economic structures, networks and practices, processes of urbanisation, as well as population dynamics and migration processes. For this purpose, socio-economic and ecological effects are investigated in various space-time contexts. Interdisciplinary and transdisciplinary approaches are pursued to develop integrative solutions for economic and societal transformation processes towards sustainability and to strengthen the resilience of the population in the context of social and ecological risks.

Within these thematic areas, the following key research areas have been defined:

# PLANETS, STARS AND GALAXIES AS COMPONENTS OF THE UNIVERSE

This key research area studies the physical parameters of galaxies, stars, planets, gas and dust, using the observation of light over the entire electromagnetic spectrum with large ground-based telescopes as well as high-performance space-based instruments. The combination of observation, theory, numerical modelling and analysis by means of data sciences provides the basis for fundamental insights into key processes in the universe, including the formation and evolution of galaxies, stars, and planets and the conditions for the origin of life.

#### **RECONSTRUCTION OF GEODYNAMIC PROCESSES**

This key research area focuses on the geological processes whose interactions control the development of Earth and the environmental conditions on its surface. This includes long-term processes driven by endogenous factors, for instance plate tectonics, magmatism, orogeny, metamorphism and deformation, as well as exogenous factors such as weathering, erosion, sedimentation and lithification. In addition, its research activities are aimed at improving forecasts of occurrences and natural hazards such as volcanic eruptions, earthquakes, gravitational mass movements and meteorite impacts, at assessing natural resources and at geotechnical applications such as geothermal energy and geological long-term underground storage, e.g. of greenhouse gases.

#### GEOMATERIALS

In this key research area, the physical and chemical properties of minerals, rocks, glass, melts and fluids and their behaviour in the context of geological and technological processes are studied. This builds on a bottom-up understanding of macroscopic material properties based on analysis of nano-scale to meso-scale characteristics, such as atomic structure, microstructure and chemical composition, combined with theoretical models. Geomaterials research supplies material data as the basis for building quantitative geological models. Industrial applications are primarily oriented towards the development and design of new mineral-based products such as construction materials, refractories or functional ceramics.

## ATMOSPHERE, WEATHER AND CLIMATE

The atmosphere is an integral part of the Earth system, and interacts intensively with the oceans, the hydrosphere, the cryosphere, the biosphere, the geosphere and the anthroposphere. Atmospheric processes are studied by synthesising information from observational data and computer simulation. Specific attention is paid to transport processes into the atmosphere, the risks of air pollution, weather forecasts and climate research. The pertinent research subjects include interactions with the other spheres, for instance by assessing anthropogenic emission and natural carbon fluxes, or by improving precipitation forecasts and early-warning systems.

## EVOLUTIONARY MECHANISMS AND ECOSYSTEMS IN SPACE AND TIME

This key research area studies the diversity of past life and the functional principles of evolution and ecosystems. Understanding evolutionary and ecological processes in the geological past is essential for making sound predictions about the future development of life. To comprehend evolution and ecosystems, the topics and methodologies of palaeontology and geobiology are linked with those of evolutionary biology, molecular biology and ecology. The aim here is to gain a better insight into the evolution of ecosystems and organisms fusing hypothesis-based analytical and quantitative methods, and to provide historical foundation for protecting species and the environment.

## ENVIRONMENTAL PROCESSES AND NATURAL RISKS

As a system, planet Earth is subject to dynamic change, which has influenced the natural environment and thus society. Identifying and understanding the environmental factors that determined changes in the past provides a basis for placing the current situation in the appropriate context, assessing future environmental impacts on economic and societal activities and evaluating hazard potentials, threats and risks. This key research area aims to improve the surveying and forecasting of the dynamics of surface processes in the complex human-environment-Earth system. It also addresses questions relating to the sustainable preservation of the basis for human life.

#### SOCIOECONOMY AND POPULATION

This key research area focuses on economic and societal sustainability transformations and population dynamics in various spatial contexts. It examines spatially differentiated development processes and their determinants against the backdrop of the overarching economic, ecological, technological, demographic, digital and cultural changes. It is oriented towards multi-scalar socio-economic transformations towards sustainability, the organisation of human-environment-technology interactions in cities, as well as migration processes against the background of environmental change and local-global development interrelations. In addition, the theoretical and methodological advancement of subject didactic concepts and models for Geography and Economics education plays an important role. This research area includes the theory-led analysis of spatial patterns and processes, the identification of challenges associated with sustainability transformations from a geographical perspective, as well as solutions through spatially sensitive policies, planning and education.

## 10.14.3. PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Astronomy, Satellite Astronomy and Experimental Astronomy
- · Cartography and Geoinformation Science
- Climate Science
- Data Science in Astrophysics (joint appointment with the Faculty of Mathematics)
- Economic Geography
- Galaxy Formation in the Early Universe
- General Meteorology
- Geodynamics and General Geology
- Geoecology

- Geology
- Geophysics
- Impact Research and Planetary Geology
- Meteorology
- Mineralogy and Crystallography
- Mineralogy and Spectroscopy
- Observational Astrophysics
- Palaeobiology with Special Emphasis on Vertebrate Palaeontology
- Palaeoecosystems
- Palaeontology
- Physical Geography
- Population Geography and Demography
- Sedimentology
- Stellar Astrophysics
- Theoretical and Experimental Petrology
- Theoretical Extragalactic Astrophysics
- Theoretical Meteorology
- Urban Studies

## 10.14.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

• Spatial Research and Spatial Planning

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

### Subject dedication of professorship:

• Geochemistry and Cosmochemistry *Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2024)

## Subject dedication of professorship:

• Seismology *Time of appointment:* following vacancy of the Professorship of Geophysics (presumably as of 1 October 2026)

## Subject dedication of professorship:

Planetary Science
 *Time of appointment:* following vacancy of the Professorship
 of Astronomy, Satellite Astronomy and Experimental

Astronomy (presumably as of 1 October 2027)

## Subject dedication of professorship:

• Space-Based Astrophysics *Time of appointment:* funding via vacant academic positions at the Faculty (presumably as of 1 October 2029)

## Subject dedication of professorship:

• Petrology and Geomaterials Science *Time of appointment:* following vacancy of the Professorship of Theoretical and Experimental Petrology (presumably as of 1 October 2029)

## Subject dedication of professorship:

• Physical Geography and Risk Research *Time of appointment:* following vacancy of the Professorship of Physical Geography (presumably as of 1 October 2029)

## Subject dedication of professorship:

• Tectonics and Applied Structural Geology *Time of appointment:* following vacancy of the Professorship of Geodynamics and General Geology (presumably as of 1 October 2029)

### Subject dedication of professorship:

 Applied Mineralogy in Geomaterials Research *Time of appointment:* following vacancy of the Professorship of Mineralogy and Spectroscopy (presumably as of 1 October 2029)

### Subject dedication of professorship:

 Observational Extragalactic Astrophysics *Time of appointment:* following vacancy of the Professorship of Galaxy Formation in the Early Universe (presumably as of 1 October 2030)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

## Subject dedication of professorship:

• Applied Geophysics for New Geoenergy Solutions

## Subject dedication of professorship:

• Data Science in Geophysics

#### Subject dedication of professorship:

• Planetary Geology

In addition, tenure track positions can be advertised.

As things stand, it is planned to advertise the following tenure track positions in particular:

- Earth System Sciences
- Environmental Mineralogy

## 10.15.1 OBJECTIVES

Research and teaching at the Faculty of Life Sciences focus on the fundamental understanding of biological systems, their organisation and evolution. Curiosity-driven basic research in biology, pharmaceutical and nutritional sciences provides the basis for application-oriented research to find new and sustainable solutions to global challenges and problems of the society.

A profound understanding of ecology, evolution, biodiversity, the function and conservation of biological systems, as well as the interactions of food and drugs, increasingly call for systems biology approaches. These approaches involve the generation of big datasets, as well as their analyses. Based on the knowledge thus obtained, the Faculty addresses the multifaceted challenges of the future – for instance, the complex causes of climate change and environmental change, aspects of ecologisation in our society, as well as a needs-oriented eco-friendly diet, identification of new therapeutic targets, and the health of an ageing population.

The Faculty of Life Sciences specifically fosters interdisciplinary research within the Faculty, and particularly supports young academics and actively aims to further intensify shared service facilities for the faculty-wide use of research equipment and instrumentation that is currently available and will be acquired in the future. To address the major scientific challenges in the life sciences, interdisciplinary research within the Faculty and between faculties is being enhanced.

The Faculty aims to continue to intensify its collaboration with other national and international research institutions in order to further strengthen the position of the University of Vienna in life sciences in the national and international research arena. The relocation of a certain part of the Faculty to the vicinity of the Vienna Biocenter Campus has already further enhanced the synergy and collaborative academic interaction with groups from the Max Perutz Labs as well as non-university research centres at the Vienna Biocenter Campus, the Institute of Molecular Pathology (IMP), the Institute of Molecular Biotechnology (IMBA) and the Gregor-Mendel Institute of Molecular Plant Biology (GMI), and will also intensify the joint use of large instruments and core/shared facilities at the Vienna Biocenter.

The Botanical Garden, with its collection of living plants and further resources, provides key foundations of biodiversity-related research and teaching at the University of Vienna. In addition, the Botanical Garden is a competence centre for national and global strategies to preserve biodiversity. With its postgraduate and advanced training activities, the Botanical Garden also plays an essential role in society (e.g. Green School at the Botanical Garden, citizen science), economy and policy matters beyond the university framework. The great societal relevance of research and teaching at the Faculty of Life Sciences is reflected in its five field stations (the Konrad Lorenz Research Center in Grünau, the Landskron Monkey Mountain, the Haidlhof station, WasserCluster Lunz, and the La Gamba tropical field station in Costa Rica). These facilities enable on-site research on animals kept under almost natural conditions and also essentially contribute to the transfer of knowledge at the regional level. In addition, they serve as platforms for interaction with the University of Veterinary Medicine, Vienna and the University of Natural Resources and Life Sciences as well as the University for Continuing Education Krems. The La Gamba tropical field station provides manifold opportunities for investigating and teaching the functions of the rainforest ecosystem and questions of biodiversity. Combined with the activities of the Rainforest of the Austrians association, the station represents a flagship project for the conservation of the rainforest and its biodiversity.

Many academics at the Faculty conduct scientific research activities that are oriented towards the research agenda of the European Research Area and manifold participation in international programmes such as the Innovative Medicines Initiative, Future Earth, Horizon

## 10.15.2 KEY RESEARCH AREAS

Europe, as well as massive sequencing programmes and systems biology projects to attract additional third-party funding from national and international sources.

Furthermore, the researchers at the Faculty significantly contribute to the academic input and evaluation of (inter)national biodiversity policies (IPBES, Convention on Biological Diversity – CBD, national biodiversity strategy). The University of Vienna thus plays an important role in devising and implementing the evidence-based protection of biodiversity. One of the key strengths of the Faculty of Life Sciences is the wide range of academic areas it covers. This provides a good basis for international top-level research, which is reflected in prestigious academic prizes awarded to researchers at the Faculty. In a field characterised by highly dynamic development, new research areas are rapidly opened up, while existing strengths are consolidated. This approach is also represented in the key research areas at the Faculty of Life Sciences.

## ANTHROPOGENIC EVOLUTION

Even though human beings and other mammals share a large proportion of biological traits, the cumulative development of technology, language and culture has led to fundamental changes in our relationships with the environment, with other living beings, and with ourselves. This has influenced the evolution of humankind in the ecological niche which they have, to an increasing extent, created themselves.

This key research area focuses on biocultural evolutionary dynamics within the Homo genus by studying the biology and behaviour of human beings in a broad social context over time, from the origin of the earliest members of the human family up to the Anthropocene. The research activities include both theoretical and empirical examinations of how environmental changes as well as socio-cultural and technological transitions have influenced, and will continue to influence, the biology, biography, and health of human beings and other organisms. This also comprises, for instance, the evolutionary relations between genes and culture, taking into account palaeo-anthropological and archaeological data as well as genomic, medical, demographic and behavioural sources of information.

## **BIOMOLECULES FOR A HEALTHY LIFESPAN**

Our disability-free life expectancy is considerably shorter than general life expectancy. So far, measures aiming to increase the lifespan

spent in good health have mostly been limited to adapting one's lifestyle. The effects of biomolecules of the primary and secondary metabolisms – which are either endogenously produced by the organism itself, or of exogenous origin – on health and age-related physiological changes have not yet been studied to a sufficient degree.

The goals of the key research area of biomolecules for a healthy lifespan are thus oriented towards (i) studying the mechanisms on which age-related physiological changes are based or that lead to age-related pathologies, (ii) understanding the modes of action of biomolecules and natural products of pharmaceutical relevance in health-related biological processes at the molecular, cellular and organismal levels, (iii) examining their influence on the number of years spent in good health, and (iv) identifying new biologically active natural products and their targets. The results will help to characterise biomolecules which have a positive effect on life expectancy and possibly on the number of years in good health. Additionally, this research will help to discover the mechanisms by which these biomolecules act.

#### COGNITION, BEHAVIOUR AND NEUROSCIENCE

This key research area studies the neuronal, hormonal and cognitive basis of behaviour. Its strength lies in an all-encompassing comparative orientation that includes different model organisms and permits numerous research approaches - from questions concerning the development and function of neuronal circuits to behaviour in social groups. This is aimed at understanding fundamental basics such as the evolutionary origin and mechanisms of neuronal information processing, as well as complex questions such as the bioacoustic and cognitive background of communication, the effects of different social structures and the influence of environmental factors on behavioural phenotypes. For this purpose, a wide range of state-of-the-art technologies are applied - for instance, recording the neuronal activity of entire brains, or tracking animals in their natural environments by GPS. The findings of this research with regard to neuronal diseases, animal cognition and socio-ecological interactions contribute to the understanding - from an evolutionary perspective - of human problems such as global mental health and sustainability or human behaviour and culture. A future goal is to use the integral character of this key research area for collaborations at the intrafaculty, interfaculty and interuniversity levels.

#### COMPUTATIONAL LIFE SCIENCES

Since large data volumes have become available, innovative computer methods for data mining, integration and analysis represent the key to the generation of new knowledge. The key research area of computational life sciences coordinates the numerous activities taking place at the Faculty with regard to the application and development of information technologies in order to enable a better understanding of biological systems. In addition to forming topicrelated clusters, this key research area is aimed at the interdisciplinary establishment of new methods in the fields of pharmacoinformatics, in-silico metabolomics, proteomics and bioinformatics, genomic evolution, sequence-function relationships, multiomics methods, machine learning, deep learning and artificial intelligence, as well as structural and systems biology. Particular emphasis is laid on processing high-throughput biological data, the development of mathematical methods for modelling biological and biomolecular systems, large-scale metagenome analyses, as well as data integration and data mining. This key research area cooperates closely with other faculties, the Centre for Microbiology and Environmental Systems Science, the Max Perutz Labs, the Center for Integrative Bioinformatics, as well as institutes of the Austrian Academy of Sciences.

## ENVIRONMENTAL CHANGE ECOLOGY, BIODIVERSITY AND SUSTAI-NABILITY

Human beings are degrading natural ecosystems and endangering their biodiversity. The consequences for essential ecosystem services can hardly be foreseen, but will potentially be massive. Research in this area investigates how climate change and changes in land use, use and overuse of the oceans, biological invasions and environmental pollution influence the functions of terrestrial, marine and limnic ecosystems, and how these changes impact their taxonomical, functional and phylogenetic diversity at all levels of biological organisation, from genes and organisms to landscapes. The researchers in this area further work on topics related to systems ecology and agroecology, and aim to intensify the study of the biogenic production of greenhouse gases, as well as of the biological accumulation of heavy metals, plastics, and contaminants of emerging concern (CECs) in terrestrial and aquatic food chains. The range of methodologies used by the research teams include technologies of molecular biology, ecophysiology, biogeochemistry, synecology and microbial ecology, as well as methods of social ecology and macroecology, and also statistical and mathematical modelling. Research in this field is aimed at improving the understanding of ecosystemic processes of change and their connection with the extinction of species. This understanding provides a basis for effective protection, conservation and restoration measures. In addition, this research area endeavours to raise awareness, among students and the general public, of the current climate crisis and biodiversity crisis.

#### **GREEN PLANET – FROM GENES TO ECOSYSTEMS**

Plants, which account for 80 % of the entire biomass on Earth, are the basis of life on our green planet, and they are important partners of human beings in the ecosystem of the Earth. Climate change, the extinction of species, energy resources, food for, and quality of life of, the world's population are just a few examples of the current social challenges addressed with regard to the plant sciences. The future of our planet, and of humankind, essentially depend on our knowledge about the evolution of plant diversity and its further development in the Anthropocene. Science needs to find answers to the current threats to plant diversity, and at the same time develop new, sustainable ways of using plants. Biodiversity research and applied studies on natural genetic diversity, e.g. work with large crop seed biobanks, are of great relevance in this field. This key research area integrates interdisciplinary and transdisciplinary approaches ranging from the sub-cellular level to individual organisms, populations, species and interactions between plants, animals, fungi and microorganisms, and finally entire ecosystems (from genes to ecosystems). In order to answer the pressing questions outlined, approaches of molecular genetics, cell physiology, ecological and evolutionary genomics, transcriptomics, proteomics, metabolomics, phylogenetics, ecophysiology, morphology, population biology and plant society research are combined with syn-, macro-, and evolutionary ecology.

#### INTERACTIONS AND EVOLUTION OF ORGANISMS

Organisms can develop because they are inherently able to bring about genetic and epigenetic changes while continuously interacting with their biotic and abiotic environment. This key research area is concerned with molecular, cellular and morphological aspects of evolutionary processes that influence the diversification and plasticity of organisms (e.g. the genetic and epigenetic basis of developmental and morphological complexity, and the interactions between multicellular eukaryotes and microbes). Taking both intraorganismal interactions between cells and interorganismal interactions into account, the researchers study the question as to how cell and tissue types, as well as morphological, physiological and ecological traits, develop and lead to evolutionary innovation, transition and radiation.

The methodological approaches adopted in this area include molecular and single-cell technologies, omics-based, morphological and biomathematical methods, along with 3D and 4D imaging technologies and field-based as well as lab-based approaches. The integration of theoretical and experimental strategies at the systems level enables comprehensive insights into the evolution of holobionts, i.e. collections of closely associated species that interact with each other in complex ways. The corresponding research uses a great variety of microbial, plant and animal systems that cover the taxonomical diversity of planet Earth in order to explore genetic functions, developmental and morphological signalling pathways, as well as organismal interactions, at several levels.

#### INNOVATION IN DRUG RESEARCH

The pharmaceutical disciplines at the Faculty of Life Sciences of the University of Vienna combine ample expertise regarding modern research into, and the development of, active substances. This expertise is maintained and continuously expanded in cooperation with national and international academic institutions, as well as in life science enterprises. The focus is on the development and application of innovative platform technologies, which are used for earlystage research and the development of pharmaceutical drugs in the areas of chemotherapeutics, neuroscience and metabolic diseases. The main research areas in which the pharmaceutical disciplines are engaged include the computational design of lead structures of pharmaceutical substances, research into natural products, identification of molecular modes of action, molecular imaging, formulation, quality assurance, nanomedicine and clinical pharmacy. The integration of this research area into further well-established key research areas at the Faculty of Life Sciences (biomolecules for a healthy lifespan, computational life sciences, and cognition, behaviour and neuroscience) places it at the central interface between chemistry, molecular biology (Max Perutz Labs) and medicine. Innovation in pharmaceutical research represents the basis, as well as great opportunities, for fruitful translational research. In addition, as far as the implementation of innovative programmes is concerned, the enterprises engaged in biomedical research increasingly often decide against conducting pre-clinical early-stage research themselves, and instead cooperate with academic institutions in this regard.

## 10.15.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Animal Physiology with Focus on Ornithology (joint appointment with the University of Veterinary Medicine, Vienna)
- Anthropology
- Biological Anthropology
- Biostatistics
- Cognitive Ethology
- Developmental Biology of Animals
- Didactics of Biology (joint appointment with the Centre for Teacher Education)
- Dietetics and Food Quality
- Ecogenetics
- Evolutionary Cognition Biology
- Limnology
- Molecular and Cellular Neurobiology
- Molecular Drug Targeting (90 %: 10 % at the Centre for Molecular Biology)
- Molecular Plant Physiology
- Morphology of Animals
- Natural Sciences in Archaeology; section 99a of the Universities Act (temporary: for six years)
- Neurobiology
- Nutritional Physiology/Molecular Nutrition
- Nutritional Sciences (Special Human Nutrition)
- Pharmaceutical Biotechnology
- Pharmaceutical Chemistry
- Pharmaceutical Sciences
- · Pharmaceutical Technology and Biopharmacy
- Pharmacognosy
- Pharmacognosy (Pharmaceutical Biology)
- Pharmacoinformatics
- · Pharmacology and Toxicology
- Plant Cytogenetics
- Plant-Microbe Interaction

- Population Ecology
- Public Health Nutrition (joint appointment with the Medical University of Vienna)
- Sports Nutrition (joint appointment with the Centre for Sport Science and University Sports)
- Structural Botany
- Theoretical Evolutionary Biology
- Vegetation Science
- Zoology and Marine Biology

## 10.15.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

- Marine Biology
- Neuroscientific Foundations of Human-Animal Interaction (joint appointment with the University of Veterinary Medicine, Vienna)
- Plant Systematics and Evolutionary Research

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

### Subject dedication of professorship:

• Animal Biodiversity *Time of appointment:* following vacancy of the Professorship of Population Ecology (presumably as of 1 October 2027)

### Subject dedication of professorship:

• Pharmacoinformatics *Time of appointment:* following vacancy of the Professorship of Pharmacoinformatics (presumably as of 1 October 2028)

#### Subject dedication of professorship:

 Animal Developmental Biology *Time of appointment:* following vacancy of the Professorship of Developmental Biology of Animals (presumably as of 1 October 2028)

## Subject dedication of professorship:

 Human Nutrition
 *Time of appointment:* following vacancy of the Professorship
 of Nutritional Sciences (Special Human Nutrition)
 (presumably as of 1 October 2028)

### Subject dedication of professorship:

 Sports Nutrition (joint appointment with the Centre for Sport Science and University Sports)
 *Time of appointment:* following vacancy of the Professorship of Sports Nutrition (presumably as of 1 October 2029)

## Subject dedication of professorship:

• Ecogenetics

*Time of appointment:* following vacancy of the Professorship of Ecogenetics (presumably as of 1 October 2030)

### Subject dedication of professorship:

• Pharmacognosy *Time of appointment:* following vacancy of the Professorship of Pharmacognosy (presumably as of 1 October 2030)

#### Subject dedication of professorship:

 Pharmaceutical Biotechnology
 *Time of appointment:* following vacancy of the Professorship
 of Pharmaceutical Biotechnology
 (presumably as of 1 October 2030)

#### Subject dedication of professorship:

Pharmaceutical Biology
 *Time of appointment:* following vacancy of the Professorship of Pharmacognosy (Pharmaceutical Biology)
 (presumably as of 1 October 2030)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

• Data Science and AI in Ecology

## Subject dedication of professorship:

• Behavioural Neuroscience

#### Subject dedication of professorship:

• Evolutionary Human Life History

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Animal Communication
- Aquatic Ecosystems
- Freshwater Animal Ecology
- Functional Morphology of Arthropods
- · Fungal Diversity and Ecology
- · Human Evolution and Virtual Anthropology
- Natural Product Research
- Phylogenomics of Animals

## 10.Z1.1 OBJECTIVES

In times of globalisation, translation and interpreting play a key role in gaining access to information and communication processes by means of digital and analogue modalities. It enables social participation for all population groups, including minorities and people with impairments. Today, everyday life and work environments tend to be permeated by – increasingly autonomous – technologies, which is paralleled by, and in turn fosters, transformation processes at the individual, organisational and social level that need to be reflected critically, and whose mastery requires new skills and abilities. This particularly applies to the work contexts and work processes of translators and interpreters, which are changing continuously and regularly bring about new cognitive, social and technological challenges.

It is essential to integratively combine research and teaching with an active contribution to the solution of social challenges in order to enable a coherent strategy of the Centre for Translation Studies.

## 10.Z1.2 KEY RESEARCH AREAS

# TRANSLATION AND INTERPRETING IN SOCIETAL, INSTITUTIONAL AND MEDIA CONTEXTS

This key research area examines translation and interpreting processes and products and the manifold media manifestations of translation in different socio-cultural communication contexts in the past and present. Translations and translators fulfil a wide range of functions and roles in processes of social dynamic, globalisation, migration, as well as in situations of conflict and war. Research and teaching are thus facing greater challenges, while translation and interpreting are equally important in literature and media, at national public agencies and health care institutions as in international organisation and the private sector. In all the above fields, the positions and roles of translators and interpreters are studied and optimised with regard to specific social and institutional contexts; the function and effect of target texts in the structure of the target culture; translation approaches to transcultural phenomena, as well as different forms of transcultural communication such as lingua franca communication. Further important aspects include the social, institutional and media-related conditions for accessibility in communication in its manifold forms and functions, as well as translation and interpreting processes and their framework in areas such as transcultural expert communication as well as literature and media productions. Innovative methods of exploration and development of processes, actors, networks, resources and technologies are used to reveal challenges and strategies for solutions in translating and interpreting practice.

## 10.Z1.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

## TECHNOLOGIES AND SOCIO-COGNITIVE PROCESSES IN ACTIONS OF TRANSLATION AND INTERPRETING

This key research area focuses on sociological, cognitive and technological aspects of current and future translation and interpreting practice and examines the way in which translators and interpreters as well as other stakeholders interact with each other and with technologies. The research objectives in this field also include the advancement of a wide range of tools enabling computational and machine translation and interpreting. The research topics in this field include, e.g. cognitive science-based modelling and representation of terminological dynamics, linguistic diversity and variation in multilingual specialised communication; the demands related to cognition (usability, accessibility) made by different user groups with regard to language technology and language resources; the possibilities and limitations of the formalisation and automation of translation processes in the international language industry; the exploration of collaborative online translation as a prototype of transcultural communication, and the assessment of the socio-cognitive and socio-communicative effects of digitalisation. This also includes observing the further development of the new paradigms of neural machine translation based on artificial intelligence.

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- · Computational Terminology and Machine Translation
- Interpreting Studies
- Interpreting Studies and Didactics of Translation
- Interpreting Studies with a Focus on Community Interpreting
- Transcultural Communication
- Translation- and Interpreting-Related Terminology Studies
   and Translation Technology
- Translation Studies
- Translation Studies

## 10.Z1.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Interpreting Studies with a Focus on Technology *Time of appointment:* funding via vacant academic positions at the Centre (presumably as of 1 October 2026)

## Subject dedication of professorship:

• General and Literary Translation Studies *Time of appointment:* funding via vacant academic positions at the Centre (presumably as of 1 October 2028)

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

• Legal Translation and Interpreting Studies

## 10.Z2.1 OBJECTIVES

At the Centre for Sport Science and University Sports, sport and human movement are studied from several different perspectives, using a wide range of theoretical and methodological approaches from disciplines of the natural sciences, the humanities and the social sciences. Since it has been widely recognised that physical activity, sport and nutrition play an important role for public health, and in view of the rapid spread of digitalisation in all fields, many new opportunities have emerged with regard to focuses of the research profile and the teaching subjects at the Centre. In particular, the Centre provides perfect conditions for an interdisciplinary exploration of topics related to sport and human movement with great social relevance – for instance, health, ageing, use of digital technologies, education and participation.

A key research objective of the Centre is to expand and foster its existing strengths, to intensify its use of the potential of interdisciplinary research and cooperation, and to build research groups of critical size. For this purpose, its two key research areas, namely lifelong health promotion and education, and human performance, will be consolidated, which is also aimed at further enhancing its international visibility. Excellent results of research and a modern infrastructure will further increase the Centre's attractiveness for international researchers.

The Department of Sport and Human Movement Science and the University Sports Institute (USI) together form an organisational unit of the University of Vienna, and cooperate with the Austrian Institute of Sports Medicine (ÖISM). The Centre also collaborates with other faculties and centres conducting research in these thematic areas – for instance, the Faculty of Life Sciences.

## 10.Z2.2 KEY RESEARCH AREAS

#### LIFELONG HEALTH PROMOTION AND EDUCATION

There is scientific evidence that regular physical activity has positive effects on physical and mental health. However, the level of physical activity tends to decrease, particularly in the industrialised world, while sedentary lifestyles are increasing. These trends are apparent in all age groups and have further intensified due to the COVID-19 pandemic. The mission of this key research area is to contribute to reversing this dynamic by studying its underlying determinants and offering effective health-promoting interventions. This includes, for instance, the development of specific measures to foster health and active ageing, the examination of psychological mechanisms behind the adherence to exercises and measures, the development of strategies for sports teachers for encouraging active life styles in all age groups and different settings, information and empowerment for pupils and young people regarding the use of digital health technologies, the development and evaluation of relevant technological assistance systems and research into the basic biological and physiological mechanisms connected with sport and nutrition. In addition, the researchers explore how people can spend time, and do exercise, in different environments (e.g. offices, sports facilities) in a healthier wav.

#### HUMAN PERFORMANCE

In the key research area of human performance, the implementation and assessment of effective, evidence-based interventions aimed at optimising, preserving and regaining physical performance play a key role. The analysis of physical performance is, in turn, the prerequisite for successful interventions, as well as for planning and controlling training processes in various (competitive) sports settings, as well as in educational and therapeutic settings.

## 10.Z2.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

This is underpinned, e.g. by findings from physiology (including research into biomarkers), training procedures, technologies, mental preparation, data analysis as well as digital transformation. Close contact to key stakeholders in this area has been established with, for instance, the Olympic Committee, national sports associations, whose activities are noticeable particularly in eastern Austria, the relevant public institutions and, of course, athletes, including student athletes.

Still, performance, its enhancement, quantification, as well as (self-) optimisation of the (lived) body are processes produced by society and are thus continuously transforming processes in society as a whole, which ultimately become deeply rooted in individuals and collectives. The integration of sport into society and culture is analysed in order to arrive at a fundamental understanding of the body as a 'product and producer of society' and consequently to generate critical and effective practical knowledge.

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Kinesiology with Special Emphasis on Biomechanics and Sport Informatics
- Sport and Exercise Physiology
- Sports Nutrition (joint appointment with the Faculty of Life Sciences)
- Training Science with Biological Orientation

## 10.Z2.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Biomechanics

*Time of appointment:* following vacancy of the Professorship of Kinesiology with Special Emphasis on Biomechanics and Sport Informatics (presumably as of 1 October 2027)

#### Subject dedication of professorship:

• Sports Nutrition (joint appointment with the Faculty of Life Sciences)

*Time of appointment:* following vacancy of the Professorship of Sports Nutrition (presumably as of 1 October 2029)

## FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

Subject dedication of professorship:

• Physical Activity and Public Health

## Subject dedication of professorship:

• Sports and Exercise Biology

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

- Data Analytics in Sports
- Physical Education and Sport Pedagogy Diversity and Health
- Sociology of Sports Culture, Physical Activity and Health

## 10.Z3.1 OBJECTIVES

The Max Perutz Labs Vienna is a partnership between the Centre for Molecular Biology at the University of Vienna and the Centre for Medical Biochemistry at the Medical University of Vienna. The goal of this unique collaboration is to tackle major scientific problems and emerging challenges at the interface of biology and medicine. The tasks and the philosophy of the Labs can be summarised under 'mechanistic biomedicine'. The term 'mechanistic' refers to the ambition to understand how the individual components of a complex system interact with each other in causal terms. It is also the Centre's ambition to become progressively less descriptive and more mechanistic as it probes more deeply into scientific phenomena. The Centre follows the conviction that a proper understanding of disease requires a fundamental understanding of causal molecular mechanisms, the elucidation of which often originates from curiosity-driven basic research pursued over long periods of time and which, in many cases, cannot be easily planned in advance.

Two important aspects of mechanistic biomedicine will be particularly emphasised and expanded in the coming years.

• The researchers at the Max Perutz Labs will increasingly aim to reconstitute complex biomedical phenomena. Eduard Buchner's discovery of cell-free fermentation in 1897 can be regarded not only as the birth of biochemistry, but also of reconstitution experiments, and these have gained considerable traction over the last few years. Reconstitution approaches now range from recreating life in its simplest form ('designer cells'), to studying complex cellular phenomena in cell-free systems, as well as the reconstitution of collective cell behaviour. By reconstituting cellular processes from isolated and well-characterised components, scientists can study and quantify the emergence of much more complex behaviour resembling cells. Examples for this include remodelling cellular membranes, folding chromosomes in three-dimensional space, signal transduction through immune receptors or the development of complex tissue structures. Complex

cell behaviour, such as intercellular communication in the immune system, can also be reconstituted and causally explained. What can we learn from reconstitution experiments today? Firstly, reconstitution experiments allow researchers to distinguish between functionally 'necessary' and 'sufficient', both regarding the role of individual molecular players and entire pathways in health and disease. Secondly, testing the predictions of mechanistic models generated from in-vivo data is facilitated by the control over all parameters that reconstitution offers. Thirdly, these synthetic biology data can themselves provide the input for quantitative modelling, thus generating new and testable hypotheses. Fourthly, reconstitution experiments can reveal emergent properties such as qualitative changes in a system, i.e. the tendency of a system to show a behaviour that cannot be deduced from the properties of the isolated, constituent components. Reconstitution experiments are inherently multidisciplinary, requiring the expertise from biochemistry, cell biology, quantitative modelling and biophysics. This commitment to cellular reconstitution of complex systems is a key strategic decision that will guide the scientists at the Max Perutz Labs in their pursuit of the answers to fundamental questions in contemporary biomedicine.

• The Max Perutz Labs will make considerable efforts to analyse biological processes across spatial and temporal scales. Since biological processes are inherently multiscale and need to be explained at these different scales (from atomic to visible to the human eye), this presents a considerable future challenge. For example, cancer progression involves interdependent, multi-factorial processes that often take place on a wide range of spatial and temporal scales. Starting with a series of genetic mutations, a small, premalignant lesion develops into an aggressive primary tumour, which interacts with its environment and manipulates it to metastasise and overwhelm an entire organism. Cancer treatment requires a deep mechanistic understanding of tumour

#### 10.Z3.2 KEY RESEARCH AREAS

biology, which has to bridge events at the atomic scale with the state of diseased cells as well as the surrounding tissues. For these reasons, multiscale approaches are essential for an integrated understanding of healthy and diseased biological systems. The first step for implementing a multiscale analysis is to travel across the scales and visualise them. Information at the molecular level alone is not enough to obtain mechanistic information.

Therefore, information must also be generated within the context of intact cells in order to fully grasp how molecules function in a complex native environment. Recent technological advances have promoted the development of such in-situ structural biology approaches in several disciplines, including cryo-electron microscopy and tomography, mass spectrometry, super-resolution microscopy, NMR, mathematical AI-based modelling and possibly simulation on high-performance computers. The second step of a multiscale analysis is to collect various types of experimental data available at different scales. The third step is to employ quantitative modelling and to develop new theoretical approaches. The fourth step is to develop minimal models, such as the reconstituted systems described above in terms of which components are functionally necessary and sufficient. Combining all these steps allows researchers to bridge observations at different scales and to create a coherent account of the entire biological system under study. Developing the experimental, theoretical and computational frameworks to bridge these differences in spatial and temporal scales will remain a major challenge for decades to come and can be a major driver of innovation and discovery at the Max Perutz Labs.

 Due to its excellence in both research and training of early stage researchers in molecular life sciences, the Max Perutz Labs has significantly contributed to the competitiveness of the biotech sector.

The Max Perutz Labs has the following four strategic priorities:

The research programmes at the Max Perutz Labs have been grouped into four key areas: mechanistic cell and developmental biology; chromatin, RNA and chromosome biology; infection and immunity; and structural and computational biology. Each key research area supports and contributes to the mission of the Max Perutz Labs, which is to analyse and reconstitute fundamental biological processes across different scales. Future recruitment strategies will aim to reinforce each of these key research areas and thereby the mission of the Max Perutz Labs. The ultimate goals in this regard are to create an interactive environment promoting fundamental discoveries in the molecular life sciences and to strengthen the ties between basic research on the one hand and clinical application on the other.

## MECHANISTIC CELL AND DEVELOPMENTAL BIOLOGY

Every one of us develops from a single cell into an organism comprising some 30 trillion cells, which fulfil numerous different tasks. The instructions for this body plan consist of a diverse array of complex and highly regulated processes that need to occur precisely and on time in every single cell. The correct functioning of fundamental cellular processes such as signalling, quality control and biogenesis of macromolecular assemblies and organelles is of the utmost importance. Mistakes in these processes can lead to disease. Scientists at the Max Perutz Labs study fundamental cellular and developmental processes at a mechanistic level, ranging from autophagy to signal transduction, and from the mechanisms controlling cell identity to the internal sub-structure and organisation of the cell. These questions of mechanistic cell and developmental biology are studied across both spatial and temporal scales, employing various approaches to analyse the properties of individual molecules, larger molecular assemblies, individual cells up to entire organisms. The approaches pursued include various microscopy techniques, biochemistry techniques, omics methods (proteomics, genomics, metabolomics and lipidomics) and genetics. Strong synergies exist

with each of the other key research areas depending on the biological questions being asked.

#### CHROMATIN, RNA AND CHROMOSOME BIOLOGY

20 years ago, the first draft of the human genome sequence was published. In the intervening years, advances in technology have led to the point that individual genomes can be sequenced affordably. For the first time, we have a window into the variations in our genetic code that lead to phenotypic differences in our species and more sophisticated tools with which to probe the genetic basis of disease. Researchers at the Max Perutz Labs in the key research area of chromatin, RNA and chromosome biology employ the whole range of technologies available at the Max Perutz Labs and the Vienna Bio-Center to study the dynamic organisation, regulation and transmission of our genetic material. One focus lies on the spatial and temporal patterns of gene expression - for instance, during the development of organisms, and the stability of genomes in mitotic and meiotic cells, which represent somatic cells and the germline. However, the genetic material is not the only object of research in this area: several groups in RNA research continue to push forward our understanding of the biogenesis of RNAs, their post-transcriptional processing and regulation, and the roles of various RNAs in cellular physiology.

## INFECTION AND IMMUNITY

The average life expectancy around the world in 1875 was approximately 35 years. Today, it is over 80 in some parts of the world. One important reason for this transformation has, without doubt, been medical innovation – for instance, the availability of antibiotics and vaccines. Research in the area of infection and immunity is particularly relevant in times of COVID-19. The key to this is a molecular understanding of our body's defence systems as well as the biology of the pathogens attacking our body. At the Max Perutz Labs, both sides of the coin are therefore examined: On the one hand, immunologists study our innate and adaptive immune systems, while on the other, infection biologists investigate the pathogens themselves, as well as their interactions with their host. This research area represents a major focus of precision medicine, which works on the development of new therapeutics, ultimately including re-programmed immune cells of the immune system in the treatment of cancer.

#### STRUCTURAL AND COMPUTATIONAL BIOLOGY

In order to understand any of the myriad functions that constitute life or cause disease, we must understand the molecular processes at the highest structural resolution possible. Research in structural and computational biology at the Max Perutz Labs covers biological processes from muscle development to cilium biogenesis, from nucleic acid processing to signal transduction.

The Max Perutz Labs takes an integrative approach to structural biology and uses complementary methods to generate comprehensive mechanistic models. A strong focus on biochemistry and computational biology supports the structural biology work in many areas. Numerous cooperation links have also been established with the Faculties of Life Sciences, of Chemistry, of Physics and of Mathematics, and will be continued in the future. High-performance computers permit the analysis of large evolutionary datasets and the molecular dynamics simulation of macromolecules. This research area will continue to play an important role in the analysis and reconstitution of fundamental processes across both spatial and temporal scales.

## 10.Z3.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here.

The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Advanced Microscopy and Cellular Dynamics
- Bioinformatics (30 %; 50 % at the Medical University of Vienna and 20 % at the Faculty of Computer Science)
- Cell and Developmental Biology
- Cell Signalling
- Chronobiology
- Crystallography of Biomolecules
- Eukaryote Genetics
- Genetics and Biochemistry
- Immunobiology
- Mathematics and Biology
   (20 %; 80 % at the Faculty of Mathematics)
- Meiosis Biology
- Membrane Biochemistry
- Molecular Bacteriology
- Molecular Biology (joint appointment with the Medical University of Vienna)
- Molecular Biophysics
- Molecular Drug Targeting
   (10 %; 90 % at the Faculty of Life Sciences)
- Molecular Spectroscopy and Photochemistry
- Quantitative Modelling of Biological Networks (joint appointment with the Centre for Molecular Biology)
- RNA Biology

## 10.Z3.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Molecular Mechanisms of Disease *Time of appointment:* funding via a vacant professorship at the Centre (presumably as of 2024)

### Subject dedication of professorship:

Integrative Structure Biology
 *Time of appointment:* as of 2024

#### Subject dedication of professorship:

 Quantitative Synthetic Biology (joint appointment with the Medical University of Vienna) *Time of appointment:* following vacancy of the Professorship of Bioinformatics (not before 1 October 2024)

## Subject dedication of professorship:

Cell Biology and Signalling
 *Time of appointment:* presumably as of 2025

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

### Subject dedication of professorship:

• Molecular Pathogenesis (joint appointment with the Medical University of Vienna)

## 10.Z4.1 OBJECTIVES

The Centre for Microbiology and Environmental Systems Science focuses on the fundamental role of microorganisms in complex environmental systems and on human impacts on aquatic and terrestrial ecosystems. It analyses the way in which bacteria, archaea, fungi, microeukaryotes and viruses interact with each other and with their environment, plants, animals and human beings.

In order to develop new approaches to the solution to major environmental problems, the behaviour and transformation of pollutants in the environment, the eutrophication of ecosystems, and feedback of microbial processes to the climate are examined. The fundamental knowledge obtained in this way will contribute to meeting the sustainability goals set by the United Nations.

Microorganisms are essential for sustaining life on Earth. The manifold functions of microorganisms in aquatic, terrestrial and engineered systems shape the environment. In close community with all other organisms, they play a key role in global element cycles and in a large number of biogeochemical and geochemical processes. Human-induced changes to these environmental systems have resulted in novel challenges that require a fundamental understanding of processes, functions of microorganisms, microbial communities and their interactions. A particular strength of the Centre, which also contributes to its international reputation, is that it explores the entire range of topics in this area, from the detailed functional analysis of microbiomes to the resulting processes and environmental impacts. The ambition of the Centre is to conduct excellent basic research at an internationally leading level. By recruiting outstanding researchers, explicitly promoting diversity, as well as through innovative interdisciplinary research approaches, the strengths of the Centre will be further expanded. In addition to numerous international cooperation schemes, the Centre also collaborates with other disciplines at the University of Vienna in broad thematic fields such as symbiosis research, climate, the environment and health. The Centre collaborates with the Medical University of Vienna to run the Joint Microbiome Facility, which enables a link between basic research at the Centre and questions in the clinical field. The first-class instruments with which the Centre is equipped give it a leading role in the development and application of state-of-the-art molecular, microscopic, mass spectroscopic and isotope-based methods, which are complemented by innovative bioinformatics methods and diverse modelling approaches.

## 10.Z4.2 KEY RESEARCH AREAS

## MICROBIOME AND MICROBE-HOST INTERACTIONS

Higher organisms, including human beings, depend on microorganisms that perform diverse functions, some of which are essential for survival. These partnerships range from interactions between two organisms all the way to the symbiotic cohabitation of a host organism and a complex microbial community: the microbiome. The main questions examined in this key research area are how these microbial symbioses have evolved, how they work, and how they adapt to a continuously changing environment. This includes exploring the evolution of mutualism and parasitism, the ecology and biology of microbial symbioses, the interaction between viruses and microorganisms, as well as between unicellular organisms, fungi, plants, animals and bacteria and archaea. Great importance is also attached to the human microbiome and its relevance for human health, which is studied in close cooperation with medical researchers. State-of-the-art molecular, bioinformatic and imaging methods are used in conducting this research. Arriving at a better understanding of the interactions between microbiomes, hosts and the environment, as well as their relevance to plants, animals and human beings, is crucial for addressing the challenges of global ecological and medical problems in a changing world.

#### MICROBIAL ECOLOGY AND ECOSYSTEMS

Microorganisms are of key importance for all global biogeochemical cycles, and for the food webs in terrestrial, aquatic and engineered systems. In this key research area, the focus lies on the structure and function of environmental microbiomes and the resulting fluxes, particularly of carbon, nitrogen, phosphorus and sulphur compounds. Functionally important microorganisms are studied with a comprehensive approach – using state-of-the-art methods of functional genomics, single-cell microbiology, isotope analysis and chemical imaging. The insights gained into the ecology and evolution of microbiomes provide the basis for a better understanding and the predictive modelling of the ecosystem functions of

microbes. They also enable the optimised use of environmental microbiomes in engineered systems and the development of strategies for the specific manipulation of microbiomes to contribute to solving environmental problems.

#### GLOBAL CHANGE AND ENVIRONMENTAL PROCESSES

The environment is a complex system in which organisms interact with abiotic nature. Environmental systems are undergoing continuous change, particularly due to human-induced global changes. Environmental processes can only be understood by exploring their fundamental biological and geochemical mechanisms and their interactions. The goal of this key research area is to identify, explore, and predictively model processes in terrestrial and aquatic systems, as well as anthropogenic influences on these processes. Central to this focus are questions about the alteration of biogeochemical processes and cycles, feedbacks to the climate, and questions of contaminant dynamics. State-of-the-art high-resolution laboratory methods are used here, particularly in the field of mass spectrometry and isotope analysis. The importance of this research area is rooted in a comprehensive understanding of complex environmental processes and the human impact upon them, which is an essential basis for future societal decisions

# 10.Z4.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. For information purposes, the research areas that are currently covered are provided in square brackets. The names outside the square brackets give the official designations. In addition to the professorships listed, the Centre for Microbiology and Environmental Systems Science maintains links with individual professors from the Faculty of Chemistry. These professors with 'bridging functions' are not enumerated here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- · Ecophysiology of Microorganisms
- Environmental Geosciences and Applied Sedimentary Petrology [Environmental Geosciences]
- Human Microbiome Research
- In-Silico Genomics [Computational Systems Biology]
- · Isotope Chemistry and Biogeochemistry
- Microbial Biochemistry (joint appointment with the Faculty of Chemistry)
- Microbial Communities
- Microbial Ecology
- Microbial Population Biology and Genetics; section 99a of the Universities Act (temporary: for six years)
- Microbial Symbioses
- Physiological Ecology and Ecosystem Research
- Plant Physiology and Ecology [Soil Ecology and Climate Change]

## 10.Z4.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

## DEDICATION OF PROFESSORSHIPS IN LINE WITH RESEARCH PRO-FILES AND WITH THE NEED TO TEACH FUNDAMENTAL SUBJECTS

Subject dedication of professorship:

• Soil Ecosystems and Global Change *Time of appointment:* funding via vacant academic positions at the Centre (presumably as of 1 October 2028)

#### Subject dedication of professorship:

• Environmental Biogeochemistry of Metals *Time of appointment:* following vacancy of the Professorship of Isotope Chemistry and Biogeochemistry (presumably as of 1 October 2029)

#### FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

#### Subject dedication of professorship:

• Artificial Intelligence in Microbiome Sciences

#### Subject dedication of professorship:

• Ecology and Evolution of Microbial Eukaryotes

#### Subject dedication of professorship:

• Physics in Microbial and Environmental Sciences

## 10.Z5.1 OBJECTIVES

The Centre for Teacher Education unites the different teacher education programmes of the University of Vienna under one roof. The mission of the Centre is to actively contribute to teacher education at the University of Vienna with regard to teaching, research and the Third Mission, as well as in the areas of career development of early stage researchers and internationalisation. For this purpose, the Centre has initiated, and continues to maintain, an exchange between all stakeholders involved in teacher education. It thus contributes to the consistent high quality of teacher education, as well as to its visibility and recognition.

Ultimately, the quality of teacher education is reflected in the way in which graduates approach teaching at schools and encourage goal-oriented learning on the part of their pupils. Professional actions and decisions in educational fields must be based on the best knowledge available. Research at the Centre is therefore aimed at providing reliable knowledge which can, for instance, help identify and explain problems of teaching and schools, at developing and empirically testing sustainable theoretical models of effective teaching and productive learning, at devising and evaluating promising measures, and analysing the conditions required for an effective implementation of innovative approaches in practical fields.

In this sense, the Centre for Teacher Education is also committed to integrating insight from international and national research into the contents and methods of teacher education at the University of Vienna.

A research and teaching profile that is focused on subject-specific teaching and on schools, as well as on teacher education itself, plays a key role in this context. In addition, the Centre attaches great importance to encouraging and supporting research and teaching projects that tackle key challenges of teaching and schools. Even though certain problems related to teaching and schools remain relevant across all periods of time, social change has also continued to lead to new challenges in education that are stressful for professional teachers as well as for learners (and parents) – not least because they affect chances in life. Keywords such as migration, educational expansion, digital transformation or inclusion represent the current challenges that the educational sector must face. Ultimately, this means that they need to be overcome by teachers in the classrooms, in school buildings, in talks with parents, in preparing lessons, as well as in collaboration between colleagues, and in implementing new curricula and instruments of quality assurance.

In its research, teaching and the Third Mission, the Centre for Teacher Education at the University of Vienna needs to come up with good responses to these challenges, and to prepare future teachers for them accordingly.

Three current challenges for teacher education are highlighted below.

Diverse life situations and heterogeneous learning conditions of pupils have increasingly become a determining factor of everyday life in teaching and learning contexts. Schools must therefore endeavour to ensure that, ideally, all pupils can, in all important areas of learning, attain a level of competence that enables their social participation. At present, this objective is not met by nearly one in four young people at the end of compulsory education in Austria. Schools must, to a greater degree than in the past, respond to individual situations, discover and foster talents, adapt the learning speed and offer differential treatments. And they need to encourage the development of interests, promote social exchange and form learning communities. In addition, they are facing new expectations, in view of the grand societal changes - for instance regarding the development of 21st-century skills and meeting the Sustainable Development Goals (UNESCO). For teacher education, this means preparing students for these challenges in the best possible way, for instance, by developing diagnostic competence and making them familiar with effective teaching methods and learning technologies, while at the same time communicating a realistic picture of professional options for action in teaching and school development. In order to fulfil these tasks, teacher education needs to have a sound research basis. By means of solid research, new approaches to teaching and support measures can be developed, tested and implemented. Strategically, good coordination and intensive cooperation between all disciplines involved in teacher education – particularly subject-matter didactics (short: subject didactics), school pedagogy and educational psychology – have become more important than ever.

- The aim of preparing future teachers for evidence-based teaching tasks underlines the need for research and represents a deliberate turning away from apodictic opinions on 'good' teaching. For subject didactics and for educational research, this represents a challenge to examine issues that are reliable in terms of methodology, based on sound theory and of practical relevance. The last few years have seen great progress especially regarding empirical research methods. To be able to assess the insights gained and build on them, students need to acquire methodological competences. Parallel to this academic foundation of professional action, schools are increasingly expected to intensify teaching and school development on the basis of evaluations or data of, for instance, standard-related surveys or individual competence assessments (e.g. the current Quality Framework for Schools issued by the Federal Ministry of Education, Science and Research). However, considerable uncertainty is also apparent at the schools with regard to how the pupils' learning can effectively benefit from this, and many possibilities of quality assurance and quality development are thus not being utilised. For this reason, the theme of teaching and school development, needs to be firmly established in teacher education, taking these requirements into account.
- Whereas, until recently, the term 'digitalisation' mainly referred to new media technologies, today the term 'digital transformation' stands for a fundamental and more far-reaching transition, characterised by a high speed and dynamism that encompasses all fields of life, and is associated with changes that are not easily foreseeable. School as an institution and as a place of learning needs to reorient itself through and towards the process of digital transformation: The competent and capable use of digital technologies needs to be taught and learned; the preparation for life-long learning will take on a new quality; the aspects of personality development (responsibility, social and political commitment) that are addressed in the context of educational goals are filled with new meaning. The digital transformation requires new approaches to education, professional competences and roles, which need to be developed in the context of teacher education (based on evidence).

Against this background, the Centre fulfils its tasks in the area of teacher education across different faculties, and ensures their strategic orientation. In addition to research, the Centre thus pursues a variety of goals beyond basic teaching and its administrative tasks.

- It devotes specific attention to the qualification objectives of the degree programmes across the four main supporting pillars (subject-matter discipline, subject didactics, educational research as well as teaching practice), thus enhancing the coherence of education.
- At the University of Vienna, many lecturers in the areas of subject didactics and educational studies are also employed in the school system. In order to ensure research-based teaching in the areas of subject didactics and education, these lecturers are integrated into the Centre's activities.

- The Centre also serves as a central contact point for all students of Teacher Education in the North-East Schools' Group, across the individual institutions. It has developed and runs an interactive online advisory tool for students, pupils and teachers. The corresponding analysis of user behaviour contributes to the research-based further development of teacher education programmes.
- Running and assisting the teaching practice programmes is part of the organisational and administrative tasks of the StudiesServiceCenter Teacher Education, as well as a key research and development area of the Centre for Teacher Education. Sustainable reflection on the practical experience of students, as well as of teachers during the early stages in the teaching profession, requires high-quality training of school mentors. Mentors' training is thus one of the key tasks of the Centre.
- The Centre regards itself as a platform for the exchange between schools and the academic world. It offers opportunities for school-related activities at the University and supports contact between researchers and schools through appropriate measures. The models of cooperation schools and the 'Kooperationsschule plus' have proven their worth in past years.
- The Centre is involved in the joint evaluation of all teacher education programmes and increasingly contributes its expertise in the areas of in-service and continuing education and the training of teachers.

## 10.Z5.2 THEMATIC AREAS

The academics at the Centre for Teacher Education work on research projects in the fields of education and subject didactics, whose themes cover almost all disciplines, and often include questions that span several subjects. As almost all academics at the Centre for Teacher Education also work at another faculty or centre, their research projects are also projects of the said faculties and centres.

The majority of research activities in the areas of subject didactics and educational studies are covered by the thematic areas described below, and address current challenges for teaching, schools and teacher education. A closer cooperation and exchange between subject didactics and the fostering of empirical research will permit a more precise focus in order to develop the above cross-sectional tasks into key research fields of the Centre.

# RESEARCH ON TEACHING AND LEARNING IN EDUCATIONAL CONTEXTS

Teaching is in the centre of educational activity at schools. Research on teaching and learning in educational contexts studies the conditions and processes that enable successful learning, i.e. meeting the relevant multidimensional educational goals and curricular requirements. Research in subject didactics focuses particularly on curricular questions, competence models, and subject-specific learning and teaching processes. Cross-disciplinary topics are mainly addressed in general didactics and school pedagogy, as well as in language teaching and language learning research, and in political studies. Further areas of research include teaching and learning under conditions of diversity and heterogeneity, the challenges of inclusive schooling and the digital transformation.

One strong point of research in this field at the Centre is that several teaching-and-learning labs have meanwhile been established (e.g. for the teaching subjects of Biology and Environmental Education, Digital Literacy and Informatics, as well as for digital education in all subjects) that can be used for development and research projects in which entire classes can be involved. Here, students of Teacher Education can, for instance, gather experience regarding the implementation of innovative teaching approaches, as well as contribute to data collection (surveys, observations) and get familiar with research methodologies. In addition, a number of projects are run in which different subject didactics and educational experts cooperate in order to test options for educational processes across different subjects or the integration of digital technologies. For instance,

Political Education can be linked with the teaching of Mathematics or Digital Literacy and Informatics, augmented reality can be used in teaching geometry, language-sensitive teaching is integrated into scientific subjects, and an assessment app for inclusive teaching has been developed.

## RESEARCH ON QUALITY AND QUALITY DEVELOPMENT OF SCHOOLS AND THE SCHOOL SYSTEM

The quality of teaching also depends on the general conditions at individual schools and in the school system - which is examined in this thematic area. This research focuses on cooperation among teachers, collaboration with parents and developing school into a stimulating, inclusive and motivating learning and living environment, as well as on processes of quality assurance by means of standard assessment systems and informal competence measurement (IKM and iKMPlus). Again, the pertinent research activities are mainly oriented towards assessing the effect of new measures and obtaining insights to enable the further development of schools. For instance, research in this area conducted at the Centre includes evaluation studies on German language support classes, the examination of learning progress and the socio-emotional development of pupils with impairments, and supporting studies on school development processes at schools facing particular challenges due to their social composition (socio-economic status, migration).

### RESEARCH ON TEACHERS' PROFESSIONAL DEVELOPMENT

Teacher education needs to build on current cutting-edge teaching- and school-related research, and ensure that students become familiar with that level of knowledge and learn to implement it in a professional way. The question as to how professional competence based on subject-related and educational expertise is developed, how it interacts with professional convictions, motivational orientations and self-regulating skills, and which formats of teaching and practice are suitable for teacher education, is in itself a topic of current research. A question of particular interest here is how, both during and after their studies, teachers are prepared to overcome current challenges (inclusion, digital transformation, as well as how to handle violence and exclusion) in a professional way. In this area, several projects are run to study how students and experienced teachers perceive teaching and learning processes among pupils in different subjects, and what methods (e.g. video vignettes, reflection on classroom videos) can be used to enable teachers' professional vision among students. Other projects examine (including at the international level) the way in which students and teachers are gradually being prepared for, and acquire competences in, inclusive teaching. Research at the Centre also covers the exploration of teacher education structures in Austria (e.g. the implementation and effectiveness of the newly established induction phase).

In this context, special attention needs to be paid to the qualification of the teachers at the Centre. They are teachers of teachers who communicate knowledge and skills and play a key role in encouraging and supporting the process of professionalisation of future teachers, and they also function as role models. In this respect, teacher education is an exceptional case as it is the only profession in which both what is taught as well as how it its taught are direct subjects of the professionalisation process. This specific feature is the starting point for qualification requirements in which the Centre is actively involved, for instance in projects such as Teaching Competence and Digital Transformation, as well as with regard to the training of mentors as 'teacher educators'.

## 10.Z5.3 PROFESSORSHIPS AS OF 1 OCTOBER 2023

For a better overview, all professorships (including any professorships initially financed by the ministry responsible for science and research) existing as of 1 October 2023 (section 98 and section 99, para. 3, section 99, para. 4 and section 99a of the 2002 Universities Act) are listed here. In addition to the professorships listed, the Centre for Teacher Education maintains links with several other professors of other faculties and centres. These professors are not enumerated here. The list below shows the situation at a certain point in time and does not predetermine any future subject dedication of professorships, nor the ones dealt with in the following section.

- Applied Computer Science (joint appointment with the Faculty of Computer Science)
- Didactics of Biology (joint appointment with the Faculty of Life Sciences)
- Didactics of Chemistry (joint appointment with the Faculty of Chemistry)
- Didactics of Computer Science (joint appointment with the Faculty of Computer Science)
- Didactics of History (joint appointment with the Faculty of Historical and Cultural Studies)
- Didactics of Physics (joint appointment with the Faculty of Physics)
- Didactics of Political/Civic Education (joint appointment with the Faculty of Social Sciences)
- Digital Education and Learning
- English Language Education (joint appointment with the Faculty of Philological and Cultural Studies)
- English Linguistics (joint appointment with the Faculty of Philological and Cultural Studies)
- Mathematics with Special Emphasis on the Didactics of Mathematics and Computer Science (joint appointment with the Faculty of Mathematics)
- Modern German Literature and its Didactics (joint appointment with the Faculty of Philological and Cultural Studies)
- Religious Education and Catechetics (joint appointment with the Faculty of Catholic Theology)
- School Pedagogy with Particular Emphasis on Secondary Education (joint appointment with the Faculty of Philosophy and Education)
- School Pedagogy with Particular Emphasis on Social, Cultural and Linguistic Diversity (joint appointment with the Faculty of Philosophy and Education)
- Subject-Specific Didactics (Language Teaching and Language Learning Research) (joint appointment with the Faculty of Philological and Cultural Studies)

## 10.Z5.4 SUBJECT DEDICATION OF FUTURE PROFESSORSHIPS AND STATUS OF IMPLEMENTATION

### PROFESSORSHIPS DEDICATED AS OF 1 OCTOBER 2023

• Inclusive Education and Disability Research (joint appointment with the Faculty of Philosophy and Education)

## FUTURE PROFESSORSHIPS SUBJECT TO AVAILABILITY OF FUNDS

### Subject dedication of professorship:

• Intelligent Educational Technologies

## Subject dedication of professorship:

• School Development and Quality Assurance

In addition, tenure track positions can be advertised. As things stand, it is planned to advertise the following tenure track positions in particular:

• Educational Diagnostics and Counselling in Schools



## 11. Degree Programmes at the University of Vienna

Based on the existing degree programmes (as of the academic year 2023/2024), the following modifications of the programme portfolio (new degree programmes, phasing out of existing programmes) have so far been scheduled. In addition, plans concerning the renaming of degree programmes are described. Restructured curricula of degree programmes, for instance due to changes in the academic profile, e.g. resulting from new professorships, have not been included.

The courses of many degree programmes at the University of Vienna are held in German and English. Degree programmes that are exclusively held in English are marked with an asterisk (\*). In addition, the courses of many other degree programmes are held in English or another foreign language.

For reasons of clarity, the following list is presented with regard to subjects; interdisciplinary master's programmes are listed in chapter 11.7: Interdisciplinary Degree Programmes (towards the end of the list); interested students can find an overview particularly of the numerous non-consecutive study options that are currently available in the Master Access Guide at https://studieren.univie.ac.at/en/degree-programmes/master-programmes/master-access-guide/.

## 11.1. Theology / Degree programmes as of 1 October 2023

DIPLOMA	BACHELOR	MASTER	
•			Catholic Theology
	•	•	Religious Education
		•	Advanced Theological Studies
	•	•	Protestant Theology
	•		Islamic Theology
		•	Islamic Religious Education

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A master's programme in Religion in Europe<sup>\*</sup> (working title), operated jointly with several other faculties and disciplines (see Chapter 11.7: Interdisciplinary Degree Programmes), will be introduced.

## 11.2. Law/ Degree programmes as of 1 October 2023

DIPLOMA	BACHELOR	MASTER	
•			Law
	•	•	International Legal Studies
		•	Business Law (in cooperation with the University of Klagenfurt)
# 11.3. Social Sciences, Business and Economics / Degree programmes as of 1 October 2023

BACHELOR	MASTER		_
•	•	Journalism and Communication Studies	_
	•	Communication Science*	_
•	•	Political Science	-
•	•	Social and Cultural Anthropology	
	•	Cultural Differences and Transnational Processes* (CREOLE; cooperation with international educational institutions)	
•	•	Sociology	MODIFICATIONS PLANNED
	•	Science – Technology – Society*	
	•	Nursing Science	The introduction of a master's programme in
•	•	Business Administration	Governing Socio-Ecological Transformations* (working
•	•	International Business Administration	title) is subject to discussion (see Chapter 11.7: Interdis-
•	•	Statistics	ciplinary Degree Programmes).
•		Economics	It is planned, as of the winter semester of 2024/2025, to
	•	Applied Economics*	rename the bachelor's programme and the master's
	•	Research in Economics and Finance*	programme in Statistics to Statistics and Data Analytics.
	•	Banking and Finance*	

# 11.4. Engineering Sciences / Degree programmes as of 1 October 2023

BACHELOR	с		MODIFICATIONS PLANNED		
	MASTE		Phasing out of the master's programme in Media		
•	•*	Computer Science	as a specialisation in the master's programme in		
	•	Media Informatics*	Computer Science is subject to discussion.		
•	•	Business Informatics	_		

## 11.5. Arts and Humanities / Degree programmes as of 1 October 2023

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•	•	Prehistory and Historical Archaeology
•	•	Classical Archaeology
•	•	Egyptology
•	•	Jewish Studies
•	•	History
	•	Auxiliary Sciences of History and Archival Studies
	•	Global History and Global Studies (cooperation with international educational institutions; ERASMUS MUNDUS)
•	•	Art History
•	•	European Ethnology
•	•	Ancient History and Studies in Classical Antiquity
•	•	Byzantine and Modern Greek Studies
•	•	Classical Philology
•		(bachelor's programme with internal specialisation: Greek, Latin);
	•	(master's programme with internal specialisation: Greek, Latin, as well as Medieval and Neo-Latin Studies)
•	•	German Philology
	•	German as a Foreign and Second Language
•	•	Romance Studies
•		(bachelor's programme with the following language options: French, Italian, Portuguese, Romanian, Spanish);
	•	(master's programme with the following language options: French, Italian, Portuguese, Romanian, Spanish)
•		English and American Studies*
	•	Anglophone Literatures and Cultures*
	•	English Language and Linguistics*
•	•	Scandinavian Studies
•	•	Slavonic Studies
•		(bachelor's programme with the following language options: Bosnian/Croatian/Serbian, Bulgarian, Czech, Polish, Russian, Slovak, Slovene, Ukrainian);
	•	(master's programme with the following language options: Bosnian/Croatian/Serbian, Bulgarian, Czech, Polish, Russian, Slovak, Slovene, Ukrainian)
•		Hungarian Studies and Fennistics
	•	Hungarian Studies and Finno-Ugrian Studies
•	•	African Studies

CHELOR	STER	
BAC	MAS	
•		Oriental Studies
	•	Ancient Oriental Philology and Oriental Archaeology
	•	The Arab World: Language and Society
	•	Turkish Studies
•		Languages and Cultures of South Asia and Tibet
	•	Languages and Cultures of South Asia
	•	Tibetan and Buddhist Studies
•	•	Japanese Studies
•	•	Korean Studies
•	•	Chinese Studies
•	•	Musicology
•		Linguistics
	•	General Linguistics:
		Theory of Grammar and Cognitive Linguistics
	•	Applied Linguistics
	·	Indo-European Studies
•	•	Comparative Literature
•	•	Theatre, Film and Media Studies
•	•	Philosophy
•	•	Education
•		Transcultural Communication
	•	Translation and Interpreting
	•	Multilingual Technologies* (joint degree programme with FH Campus Wien)

### MODIFICATIONS PLANNED

A new master's programme in Arabic Linguistics\* is planned. Scheduled to be established in the winter semester of 2024/2025.

The master's programme in Chinese Studies will be renamed to Sinophone Societies and Cultures\*\* and reorganised.

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### 11.6. Natural Sciences / Degree programmes as of 1 October 2023

BACHELOF	MASTER	
•	•*	Mathematics
•	•	Chemistry
	•	Biological Chemistry
	•	Chemistry and Materials Technology (degree pro- gramme established in cooperation with TU Wien)
	•	Food Chemistry
•	•*	Physics
	•	Physics of the Earth* (joint curriculum with the Comenius University in Bratislava)
•	•*	Meteorology
•	•*	Astronomy
•	•	Earth Sciences
•		Geography
	•	Geography: Global Change and Sustainability*
	•	Cartography and Geoinformation
	•	Regional Research and Regional Planning
	•	Urban Studies* (cooperation with international educational institutions)
•		Biology
	•	Botany*
	•	Cognition, Behavior and Neurobiology*
	•	Ecology and Ecosystems*
	•	Evolutionary Anthropology
	•	Molecular Biology*
	•	Molecular Microbiology, Microbial Ecology and Immunobiology*
	•	Molecular Precision Medicine* (established jointly with the Medical University of Vienna)
	•	Conservation Biology and Biodiversity Management
	•	Zoology
•	•	Nutritional Sciences
•	•	Psychology
•	•	Sport Science
	•	European Master in Health and Physical Activity* (cooperation with international educational institutions)
•	•	Pharmacy
	•	Drug Discovery and Development*

#### MODIFICATIONS PLANNED

It is planned to rename the bachelor's programme in Meteorology to Meteorology and Climate as of the winter semester of 2024/2025.

It is planned to rename the master's programme in Meteorology\* to Meteorology and Climate Science\*.

The joint master's programme in Physics of the Earth\* will be phased out as soon as possible, in coordination with the partner university. The further development in this area cannot yet be specified (depending on staff developments).

The master's programmes in Regional Research and Regional Planning and in Urban Studies will be merged. New designation: Urban Sustainability and Planning\*. Implementation is scheduled for the winter semester of 2025/2026.

The German name of the master's programme in Botanik/Botany\* will be renamed to Botany\*.

The master's programme in Molecular Microbiology, Microbial Ecology and Immunobiology will be phased out.

It is planned to establish a new master's programme in Microbiome Science\* (see Chapter 11.7: Interdisciplinary Degree Programmes).

The master's programme in Evolutionary Systems Biology will be renamed to Evolutionary Genomics and Systems Biology\* (see Chapter 11.7: Interdisciplinary Programmes).

The bachelor's and master's programmes in Sport Science will be renamed to Sport Science and Kinesiology.

### 11.7. Interdisciplinary Degree Programmes / Degree programmes as of 1 October 2023

ASTER	
ΜĄ	
•	Austrian Studies – Cultures, Literatures, Languages
•	Computational Science*
•	Environmental Science*
•	Global Demography*
•	Gender Studies
•	Development Studies
•	Middle European interdisciplinary master's programme in Cognitive Science* (cooperation with international educational institutions)
•	Study of Religions
•	East Asian Economy and Society*
•	Epistemologies of Science and Technologies (EST)
•	Bioinformatics (with participation of the Medical University of Vienna)
•	Interdisciplinary Ethics
•	Contemporary History and Media
•	Culture and Society of Modern South Asia
•	Interdisciplinary East European Studies
•	Evolutionary Systems Biology* (master's programme with an interdisciplinary orientation, established jointly with the University of Veterinary Medicine, Vienna)
•	Philosophy and Economics*
•	Data Science*
•	Digital Humanities
•	Business Analytics*
•	Green Chemistry (established jointly with TU Wien and the University of Natural Resources and Life Sciences of Vienna)
•	Neuroscience* (cooperation with the Medical Univer- sity of Vienna)

#### PLANNED INTERDISCIPLINARY DEGREE PROGRAMMES

A master's programme in Religion in Europe\* is planned. Scheduled to be established not before 2024/2025.

A master's programme in Microbiome Science is planned. Scheduled to be established in the winter semester of 2025/2026.

A master's programme in Governing Socio-Ecological Transformations (working title) is subject to discussion.

It is planned to rename the master's programme in Environmental Science\* to Environmental Systems: Processes – Pollution – Solutions\*.

The master's programme in Evolutionary Systems Biology\* will be renamed to Evolutionary Genomics and Systems Biology\*.

### 11.8. Teacher Education and Degree Programmes Related to Teaching / Degree programmes as of 1 Oct. 2023

Students in the *bachelor's resp. master's programmes* to obtain a teaching degree for secondary schools (general education) at the University of Vienna are required to combine two of the following teaching subjects:

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•	•	Biology and Environmental Education
•	•	Bosnian/Croatian/Serbian
•	•	Catholic Religion
•	•	Chemistry
	•	Computer Science
•	•	Czech
•	•	Descriptive Geometry
		(teaching cooperation with TU Wien)
•		Digital Literacy and Informatics
•	•	English
•	•	Ethics
•	•	French
•	•	Geography and Economic Education
•	•	German
•	•	Greek
•	•	History and Political Education
•	•	Home Economics and Nutrition
•	•	Hungarian
•	•	Inclusive Education (specialisation)
•	•	Italian
•	•	Latin
•	•	Mathematics
•	•	Physics
•	•	Polish
•	•	Protestant Religion
	•	Psychology and Philosophy
•	•	Russian
•	•	Slovak
•	•	Slovene
•	•	Spanish
•	•	Sports and Physical Education

In addition, the following programmes without compulsory combined and the second secon	j-
nation of subjects also relate to teacher education:	

BACHELOR	MASTER	
•	•	Religious Education
	•	Chinese Studies with Special Emphasis on Teaching Chinese
	•	Islamic Religious Education

#### MODIFICATIONS PLANNED

BACHELOR'S PROGRAMMES:

The partial curriculum of the Computer Science teaching subject will be phased out by 31 October 2027.

The Digital Literacy and Informatics teaching subject will be started as of the winter semester of 2023/2024.

#### MASTER'S PROGRAMMES:

It is planned establish the partial curriculum for the Digital Literacy and Informatics teaching subject in the winter semester of 2024/2025.

### 11.9. Doctoral Programmes / Degree programmes as of 1 October 2023

Regarding the *doctoral programmes* at the University of Vienna, the following curricula apply:

DOKTORAT	
	Curriculum for the PhD programme in Theological Studies and the
	doctoral programme in Protestant Theology and the doctoral programme in Catholic Theology
•	Curriculum for the doctoral programme in Law and the PhD programme in Interdisciplinary Legal Studies
•	Curriculum for the PhD programme and the doctoral programme in Business, Economics and Statistics
•	Curriculum for the doctoral programme in Social Sciences
•	Curriculum for the doctoral programme in Humanities, Philosophy and Education
•	Curriculum for the doctoral programme in Natural Sciences and Technical Sciences in the field of Natural Sciences
•	Curriculum for the PhD programme/doctoral programme in Life Sciences
•	Curriculum for the PhD programme in Molecular Biosciences (established jointly with the Medical University of Vienna)
•	Curriculum for the PhD programme in Sport Science