

Study regulations of the FH Master's course

Facility and Real Estate Management

To obtain the academic degree

Master of Arts in Business,
abbreviated to MA

as an appendix to the statutes of the FH Kufstein Tirol

Organizational form: part-time

Duration: 4 semesters

Scope: 120 ECTS

Places for beginners per academic year: 25 part-time

Content

1 Occupational profiles.....	3
1.1 Occupational fields	3
1.2 Qualification profile	5
2 Curriculum	14
2.1 Curriculum Data	14
2.2 Curriculummatrix.....	15
2.3 Module descriptions.....	18
2.4 Internship.....	42
2.5 Semester Abroad.....	42
3 Admission requirements.....	43

With the amendment to the University Act 2020, the so-called "University of Applied Sciences Studies Act (FHStG)" has been renamed "University of Applied Sciences Act (FHG)". Accordingly, a necessary editorial adjustment was made in this document on January 13th, 2021 and the name FHStG was replaced by FHG.

1 OCCUPATIONAL PROFILES

1.1 Occupational fields

There are a number of areas of application and fields of activity for graduates of the Master's course in strategic Facility and Real Estate Management. Graduates will be able to work in a range of professional fields within the two sectors of facility management and real estate management. They may work in various companies, such as educational institutions, consulting firms, architecture and engineering offices, construction companies, management companies, real estate trustees, housing associations, housing developers or service providers for facility services. The areas of responsibility include all activities that are concerned with the planning, realization, organization, control, monitoring, procurement and management as well as utilization of property-related structural and facilitative infrastructures.

The following fields of activity describe specific areas of application, which are based on the strategic orientation of the real estate portfolio and the organization or, in part, on the functional areas.

Development & Implementation of Facility Management Strategies:

The internationally-oriented facility and real estate manager develops concepts in the field of Facility Management as a derivation from the strategic corporate guidelines. Aided by information management tools and utilizing benchmarking tools, optimal corporate and competitive strategies are developed. This enables them to support the organization and its processes and to take on a monitoring role. In doing so, they influence investment and disposal decisions of real estate and infrastructural facilities with the aim of optimizing them from an economic and user-oriented perspective and placing them at the service of the core processes of their organization.

The internationally-oriented facility and real estate manager is responsible within the company for defining the strategy of the facilitative services. They perform this task for external service providers as well as in the internal corporate function. They are also able to critically reflect the existing scope and demand for services in wider contexts and, if necessary, to organize, install and adapt them.

Corporate (CREM) & Public (PREM) Real Estate Management

Corporate Real Estate Management refers to the economization of operational real estate and therefore to real estate management in companies whose core business is not the management of real estate portfolios. The tasks of the internationally-oriented facility and real estate manager include in some fields the consideration of portfolio correlations in the portfolio. However, the starting point here is always the superordinate corporate strategy. This involves exploiting the economic potential of the company's properties and, if necessary, formulating and implementing exploitation strategies for properties not required for operations. Similar to the private companies (cf. CREM), which have extensive land holdings, an increasing awareness of the efficient use of the "real estate" resource can be seen in the property management of the local authorities. The change set out above is not least reinforced by precarious budget deficits. From the point of view of the public sector, a market economy approach to real estate requires institutionalized public real estate management, possibly with the help of a spin-off of companies. In this field of activity, the internationally-oriented facility and real estate manager is expected to have expertise in utilizing previously-unused public properties, cost optimization, more effective management and the development of new revenue potential.

Real Estate Portfolio Management & Monitoring

The portfolio management of real estate holdings includes the economic use of the "real estate" resource as a separate asset class. This involves making and implementing decisions relating to the planning, organization, execution and monitoring of purchase and sale programs of the real estate portfolio. In this context, the real estate portfolio and its management form the core business of the organization under review. Nowadays, the manager must consciously break away from the buy-and-hold approach. Real estate is purchased in order to achieve value appreciation in addition to net cash flow returns (buy-and-sell strategies). For this purpose, the field of activity requires a sound knowledge of portfolio correlations and the realization of portfolios. Economic and legal, but also technical, environmental and social aspects in particular must be taken into account. The real estate portfolio manager is also the real estate controller, i.e. they must manage relevant real estate-related indicators and ratios in terms of efficient use of resources. For this purpose, they make use of familiar IT applications and are able to

critically reflect on their own results and measure performance on the basis of competitive benchmarking analyses. Furthermore, they are entrusted with the preparation, design and analysis of annual financial statements in accordance with national and international accounting standards.

Property Valuation

There are a variety of starting situations that require a valuation of developed and undeveloped properties. The determined market or fair value forms the basis for transaction decisions and therefore occupies a special position in the industry. Furthermore, the knowledge gained from this is necessary for further fields of activity, such as real estate portfolio management, or brokerage and exploitation.

Real Estate Brokerage & Exploitation

The collection, analysis and consolidation of information for marketing purposes is an important field of activity for the internationally-oriented facility and real estate manager. Building on this, the competent development of marketing measures must be planned and implemented based on market-oriented pricing, the selection of suitable distribution channels and the identification of appropriate communication measures. The management tasks within the framework of Real Estate Brokerage & Exploitation relate to the portfolio level. From this, guidelines and instructions for individual sales are derived. As a manager in internationally-active brokerage houses, they are responsible for preparing real estate portfolios and for the development of complex marketing strategies.

Real Estate Development

As a project developer, they are able to carry out complex market and location analyses and, based on these, profitability calculations for large-volume construction projects. These may relate to individual properties, such as shopping centers or logistics locations, but also include urban development measures. Their knowledge and areas of responsibility therefore go beyond the regionally-limited property development activities in the residential sector and may also include cross-border activities and the development of special-purpose properties. In doing so, they are also able to integrate the risks of projects into the decision-making process and to take into account the interests of various stakeholders.

Management & Optimization of Building Operations

Another important task is the development of strategic concepts for operating buildings, taking into account the aspects of economy, functionality and security. Among other things, the realization of savings potentials in energy management/energy contracting plays an essential role. The internationally-oriented facility and real estate manager is particularly important for companies that place high demands on their technical facilities and security (such as hospitals, clinics, nursing homes, museums, art galleries, industrial companies, airports, and public institutions).

The definition of suitable maintenance strategies is a key success factor for companies. Their interdisciplinary education enables internationally-oriented facility and real estate managers to provide optimal maintenance concepts derived from the corporate strategy, which improve the company's results under consideration of safety-relevant and legal conditions and risk assessments.

The internationally-oriented facility and real estate manager is qualified to lead and implement the process of a holistic security management. Their field of activity includes in particular:

- Risk analyses with regard to secondary processes and the avoidance and containment of risks through technical and organizational measures
- Reduction of risk costs (especially in the medium and long term), for example through insurance management measures
- Safety strategies for operational safety: Fire protection, plant safety, influences by force majeure etc.
- Development and implementation of concepts for IT security

Energy, Environmental & Sustainability Management:

Energy and environmental management are becoming increasingly important, particularly due to the high potential for savings. By taking a holistic life cycle approach, these potentials are uncovered and

made available to the company. In this function, they are important both for consultants and within the company.

Employment opportunities for graduates in company divisions

- National and international industrial companies
- Banks, insurance companies, investment companies
- Municipal administration (municipality, state, federal government)
- Non-profit institutions and foundations
- Educational institutions such as schools, technical colleges, universities
- Consulting company focusing on the real estate sector
- Architectural and engineering offices, general planners, construction companies
- Management companies, real estate trustees such as brokers, administrators, property developers and project developers as well as other service providers in the real estate industry
- Housing companies, housing developers
- Security services companies
- International conglomerates
- Service provider for facility services
- Service companies in various industries:
 - Clinics, hospitals, nursing homes and old people's homes
 - Airports, airlines, railway stations, logistics centers
 - Shopping centers and adventure parks
 - Companies for event management
 - Utility and waste management companies
 - Technology, trade, science, and innovation centers
 - Television and radio stations
 - Tourism enterprises
 - Retail chains

1.2 Qualification profile

The qualification aims and learning outcomes of the Master's course[Thema] correspond both to the academic and professional requirements and to *ISCED level 0788*¹ (International Standard Classification of Education). The contents conveyed qualify the graduates for the professional fields of activity mentioned in the previous chapters.

The main focus of the course lies in the fundamental technical, economic and legal contexts of the industry as well as in imparting knowledge of quantitative and qualitative approaches in the field of

¹ Example 4: A program consisting of 40% engineering (071), 30% business (041) and 30% languages (023) should be classified as 0788 ("Inter-disciplinary programs and qualifications involving engineering, manufacturing and construction") as no field predominates but 07 is the leading broad field. If engineering and business were equally important and greater than languages (e.g. 40%, 40% and 20%), the program would be classified as either 0788 or 0488 depending on which program, engineering (071) or business (041), is listed first in the program title (or, if not in the title, in the curriculum or syllabus).

scientific methods for the implementation and application of business-related and academic problems, analyses and research work. In particular, methods and concepts that are generally necessary for solving problems in the real estate sector and in the facility sector are dealt with. This includes knowledge in the field of real estate development and valuation, as well as strategic facility management. In addition, there are fields of competence, such as project management, Investment & Risk Management or Marketing & Communication, which are relevant in all professional fields of activity. The interdisciplinary application of specialist knowledge and feedback from current practice and research is provided in the Practice Project and WinterSchool modules. Integration and transfer from the field of research takes place within the framework of the Data Analysis & Empirical Methods module on the one hand and the Practice & Research Transfer module on the other.

The following modules and courses are intended to achieve the core competencies in Facility and Real Estate Management:

- Regional & Real Estate Economics
- Construction Management
- Real Estate Development
- Property Valuation
- Real Estate Law
- Strategic FM

The core skills taught in the study course Facility and Real Estate Management are shown in the following table in connection with the occupational descriptions for which they appear necessary (black fields). The light grey fields represent indirect connections. An indirect connection results from corresponding partial contents for the professional fields of activity of the modules.

Connection of modules - professional fields of activity:

	Occupational fields								
	Development & Implementation of Facility Management Strategies	Corporate & Public Real Estate Management	Real Estate Portfolio Management & Monitoring	Property Valuation	Real Estate Brokerage & Exploitation	Real Estate Development	Management & Optimization of Building Operations	Energy, Environmental & Sustainability Management	
Modules / Core skills									
Regional & Real Estate Economics		■	■	■	■				
Construction Management		■	■			■	■		
Real Estate Development		■			■	■			
Property Valuation			■	■	■	■			
Real Estate Law		■	■	■	■	■	■		
Strategic Facility Management	■	■					■		
Modules / Elective									
Real Estate Industry Compendium		■	■	■	■	■	■		
Facility Management Compendium	■						■	■	
Security Management	■	■							■
Asset & Portfolio Management		■	■		■		■		
Recycling Management & Bioeconomy								■	■
Mobility Management		■					■	■	
Sustainable Building Certification		■	■						■
Energy & Building Simulation							■	■	
Key:									
Direct connection	■								
Indirect connection	■								

The following table shows the respective occupational fields of activity and their defined tasks as well as the associated competences. The corresponding modules are assigned to the listed competences.

Competence descriptions according to occupational fields of activity

Occupational field of activity	Task	Competence description	Competence allocation	Curriculum/modules
Development & Implementation of Facility Management Strategies	Analysis and optimization of workflows and processes	Knows the legal requirements on the part of the operator responsibility	Professional-Academic Competencies/ Technology	Facility Management Compendium
		Can formulate service level agreements/tenders for a range of facility services	Professional-Academic Competencies/ Technology	Facility Management Compendium
		Knows legal and normative conditions of facility management	Professional-Academic Competencies/ Technology	Strategic Facility Management
		Can analyze decision criteria in the fields of planning and construction in the context of FM	Professional-Academic Competencies/ Technology	Strategic Facility Management
		Can describe and evaluate processes and tasks of a holistic and sustainable facility management	Professional-Academic Competencies/ Economics	Strategic Facility Management
Corporate & Public Real Estate Management	Optimization of the building stock	Knows the basics of building management and the technical requirements	Professional-Academic Competencies/ Technology	Real Estate Industry Compendium
		Knows the measures for preventive building security	Professional-Academic Competencies/ Technology	Security Management
		Knows the measures for preparing construction measures	Professional-Academic Competencies/ Technology	Construction Management
	Analysis of potentials	Can classify economic relationships in the real estate industry	Professional-Academic Competencies/ Technology	Real Estate Industry Compendium
		Can identify value enhancement potential and measures for real estate portfolios	Professional-Academic Competencies/ Technology	Asset & Portfolio Management
	Create investment strategies	Knows financing tools and market risks	Professional-Academic Competencies/ Technology	Investment & Risk Management
		Can derive measures to increase user satisfaction	Professional-Academic Competencies/ Technology	Strategic Facility Management
	Real Estate Portfolio Management & Monitoring	Financing and capital market analyses	Knows financing tools and market risks	Professional-Academic Competencies/ Technology

	Damage analysis	Can classify construction defects and damages	Professional-Academic Competencies/ Technology	Construction Management
		Knowing relevant sources of information	Professional-Academic Competencies/ Technology	Real Estate Industry Compendium
	Analysis of optimization potentials	Can prepare investment and potential analyses	Professional-Academic Competencies/ Technology	Asset & Portfolio Management
		Can collect and evaluate key performance indicators for measuring performance	Professional-Academic Competencies/ Technology	Asset & Portfolio Management
Property Valuation	Assessments according to national standards	Know the real estate and capital market conditions	Professional-Academic Competencies/ Technology	Real Estate Industry Compendium
		Can apply the methods of valuation	Professional-Academic Competencies/ Technology	Real Estate Industry Compendium
		Knows specific features of the valuation	Professional-Academic Competencies/ Technology	Property Valuation
	Evaluations beyond the standardized procedures	Knows international and other procedures of valuation	Professional-Academic Competencies/ Technology	Property Valuation
		Can analyze specific features of the valuation	Professional-Academic Competencies/ Technology	Property Valuation
Real Estate Brokerage & Exploitation	Exploitation activities	Knows the value of a stock	Professional-Academic Competencies/ Economics	Property Valuation
		Can analyze objects within the scope of due diligence	Professional-Academic Competencies/ Economics	Asset & Portfolio Management
		Know the real estate and capital market conditions	Professional-Academic Competencies/ Economics	Regional & Real Estate Economics
	Sales activities	Can use the tools of real estate marketing	Professional-Academic Competencies/ Economics	Marketing & Communications
	Property rental	Knows measures to reduce vacancies	Professional-Academic Competencies/ Economics	Asset & Portfolio Management
		Can classify the legal areas of the real estate industry	Professional-Academic Competencies/ Economics	Real Estate Law
Real Estate Development	Preparation of development and feasibility studies	Can classify public-law provisions of building law	Professional-Academic Competencies/ Technology	Real Estate Development

	Legal situation	Can understand legal regulations (in particular trade regulations, BTVG)	Professional-Academic Competencies/ Economics	Real Estate Law
	Analysis of locations and markets	Can conduct location and market analyses	Professional-Academic Competencies/ Technology	Real Estate Development
	Creating utilization concepts and design variants	Can design objects according to their function and needs	Professional-Academic Competencies/ Technology	Real Estate Development
		Knows object design tools (BIM)	Professional-Academic Competencies/ Technology	Construction Management
	Stakeholder analysis	Can identify stakeholders and create a communication strategy	Professional-Academic Competencies/ Economics	Marketing & Communications
	Creation of investment and financing plans	Can apply financial accounts	Professional-Academic Competencies/ Economics	Investment & Risk Management
		Knows participation constellations	Professional-Academic Competencies/ Economics	Investment & Risk Management
		Can perform risk analysis	Professional-Academic Competencies/ Economics	Real Estate Development
	Supervises of building projects	Can plan and coordinate projects according to their objectives, costs, deadlines and quality	Professional-Academic Competencies/ Economics	Construction Management
Management & Optimization of Building Operations	Performance of Services	Can measure quality requirements of services	Professional-Academic Competencies/ Technology	Strategic Facility Management
	Occupancy planning	Can carry out vacancy analyses	Professional-Academic Competencies/ Technology	Asset & Portfolio Management
		Can describe relocation processes	Professional-Academic Competencies/ Technology	Facility Management Compendium
	Optimization of energy consumption	Knows the basics of thermal and energetic building simulation	Professional-Academic Competencies/ Technology	Energy & Building Simulation
	Building security	Can evaluate dangers and derive safety measures	Professional-Academic Competencies/ Technology	Security Management
Energy and Environmental & Sustainability Management	Energy use and energy saving	Can analyze energy and building technology systems under dynamic conditions	Professional-Academic Competencies/ Technology	Energy & Building Simulation
	Mobility concepts	Ability to analyze and create mobility concepts	Professional-Academic Competencies/ Technology	Mobility Management

	Knows strategies to avoid mobility	Professional-Academic Competencies/ Technology	Mobility Management
	Know national and international certification systems	Professional-Academic Competencies/ Technology	Sustainable Building Certification
Lifecycle assessment	Can present life cycle analyzes (costs and ecology)	Professional-Academic Competencies/ Technology	Sustainable Building Certification
	Knows the technical and biological cycle for consumer products	Professional-Academic Competencies/ Technology	Recycling Management & Bioeconomy

The following table shows, as before, the competences and their associated modules, but these tasks, like competences, extend beyond vocational activities and therefore concern all fields of activity.

Competence descriptions for all occupational fields of activity:

Occupational field of activity	Task	Competence description	Competence allocation	Curriculum/ modules
Concerns all professional fields of activity	Project management	Knows problems and can independently develop solutions in a practical environment	Personal and social skills	Practical Project
		Can create project plans, and organizations	Professional-Academic Competencies/ Economics	Project management
		Understands problems and can independently develop solutions in the practical environment as well as in research and development	Personal and social skills	Practice & Research Transfer
	Entrepreneurial thinking	Can develop corporate strategies and design implementation processes	Professional-Academic Competencies/ Economics	Strategic Business Management & HRM
		Know the areas of responsibility of personnel management	Professional-Academic Competencies/ Economics	Strategic Business Management & HRM
	Interdisciplinary work	Can work on projects in interdisciplinary and intercultural teams	Personal and social skills	International Facility Management & Real Estate Development
	Intercultural work	Can discuss the knowledge acquired in an international context	Personal and social skills	International Facility Management & Real Estate Development - Practice, Research & Study Trip

	Can research and prepare problem areas and findings	Personal and social skills	Data Analysis & Empirical Methods
Academic approach	Can apply scientific methods and their empirical investigations	Personal and social skills	Data Analysis & Empirical Methods
	Can apply scientific methods based on own empirical research.	Personal and social skills	Master thesis & colloquium

The following table 6 shows the competences and their assigned modules as before, but these in-depth tasks as well as competences depend on the professional activities across the board and on the selected electives from the 2nd and 3rd semester. A total of six elective modules are offered, of which three modules must be chosen and successfully completed.

Elective modules are available for selection in the second semester:

- Elective module 1: Mobility management or safety management
- Elective module 2: Recycling Management & Bioeconomy or Asset & Portfolio Management

In the third semester, students can choose the elective modules:

- Elective module 3: Energy & Building Simulation or sustainable building certification

Competence descriptions depending on the elective modules selected

Occupational field of activity	Task	Competence description	Competence allocation	Curriculum/ modules	
Professional fields of activity (depending on elective module 1)	Mobility services	Can identify the options and requirements of infrastructure (including energy supply) for sustainable mobility and debate with key figures	Technical-scientific skills/ economics and management	Mobility Management	
	Innovative mobility strategies	Are able to analyze approaches to solutions for economic and strategic implementation and to develop these independently	Technical-scientific skills/ economics and management	Mobility Management	
	Mobility concepts		Ability to analyze and create mobility concepts	Technical-scientific skills/ economics and management	Mobility Management
			Knows strategies to avoid mobility	Technical-scientific skills/ economics and management	Mobility Management
	Optimization of the building stock	Knows the measures for preventive building security	Technical-scientific skills/ economics and management	Security Management	
	Building security	Can evaluate dangers and derive safety measures	Technical-scientific skills/ economics and management	Security Management	

Occupational fields of activity (depending on elective module 2)		Knows the connection between sustainability goals and the circular economy and bioeconomy	Technical-scientific skills/ economics and management	Recycling Management & Bioeconomy
	Develops the efficiency and sustainability of a company	Knows the technical and biological cycle for consumer products	Technical-scientific skills/ economics and management	Recycling Management & Bioeconomy
		Can evaluate the life cycle of a company's products	Technical-scientific skills/ economics and management	Recycling Management & Bioeconomy
		Can identify value enhancement potential and measures for real estate portfolios	Technical-scientific skills/ economics and management	Asset & Portfolio Management
	Analysis of potentials	Can identify value enhancement potential and measures for real estate portfolios	Technical-scientific skills/ economics and management	Asset & Portfolio Management
	Analysis of optimization potentials	Can prepare investment and potential analyses	Technical-scientific skills/ economics and management	Asset & Portfolio Management
		Can collect and evaluate key performance indicators for measuring performance	Technical-scientific skills/ economics and management	Asset & Portfolio Management
	Recovery activities	Can analyze objects within the scope of due diligence	Professional-Academic Competencies/ Economics	Asset & Portfolio Management
	Property rental	Knows measures to reduce vacancies	Professional-Academic Competencies/ Economics	Asset & Portfolio Management
	Occupancy planning	Can carry out vacancy analyses	Professional-Academic Competencies/ Technology	Asset & Portfolio Management
Occupational fields of activity (depending on elective module 3)	Energy concepts in the building sector	Can understand, analyze, compare and critically question complex energy and building technology systems under dynamic conditions	Professional-Academic Competencies/ Technology	Energy & Building Simulation
	Building simulation	Can understand and apply the methods of a building simulation	Professional-Academic Competencies/ Technology	Energy & Building Simulation
	Life cycle assessment	Know national and international certification systems	Professional-Academic Competencies/ Technology	Sustainable Building Certification
		Can present life cycle analyzes (costs and ecology)	Professional-Academic Competencies/ Technology	Sustainable Building Certification

2 CURRICULUM

2.1 Curriculum Data

	PT	Comment if applicable
First year of study (YYY/YY ₊₁)	2021/2022	
Standard duration of study (number of semesters)	4	
Obligatory WSH (Total number for all sem.)	49.50	
Course weeks per semester (number of weeks)	15	
Obligatory course hours (Total for all sem.)	817.50	
Obligatory ECTS (Total for all sem.)	120	
WS start (Date, comm.: poss. CW)	CW 40	
WS end (Date, comm.: poss. CW)	CW 5	
SS start (Date, comm.: poss. CW)	CW 11	
SS end (Date, comm.: poss. CW)	CW 28	
WS weeks	15	
SS weeks	15	
Obligatory semester abroad (semester specification)	No	
Language of instruction (specify)	German	The proportion of English-language courses amounts to 20.2% of the WSH
Internship (semester information, duration in weeks per semester)	No	
Resulting from the merging of the degree programs or from the separation from the degree program (StgKz; to be specified only for merging or separation)		

2.2 Curriculummatrix

Module assignment overview:

Mod-	Module Title	Course title	WSH	ECTS	Sem.
APM	Asset & Portfolio Management	Asset & Portfolio Management (elective)*	2.5	5	2
BM	Construction Management	Construction Management	2.5	5	1
CEBE	Recycling Management & Bioeconomy	Environmental Services & Bioeconomy (elective)*	2.5	5	2
DEM	Data Analysis & Empirical Methods	Data Analysis & Empirical Methods	2.5	5	2
DEV	Real Estate Development	Real Estate Development	2.5	5	2
FMK	Facility Management Compendium	Facility Management Compendium	2.5	5	1
IR	Real Estate Law	Real Estate Law	2.5	5	3
IRM	Investment & Risk Management	Investment & Risk Management (E)	2.5	5	2
IWK	Real Estate Industry Compendium	Real Estate Industry Compendium	2.5	5	1
MA	Master thesis & colloquium	Master thesis & colloquium	1	24	4
MCO	Marketing & Communications	Marketing & Communication (E)	2.5	5	3
MOB	Mobility Management	Mobility Management (elective)*	2.5	5	2
PFE	Practice & Research Transfer	Practice & Research Transfer	1.5	3	4
PJ	Practical Project	Practical Project	2.5	5	3
PM	Project management	Project management	2.5	5	1
RIM	Regional & Real Estate Economics	Regional & Real Estate Economics	2.5	5	1
SBM	Strategic Business Management & HRM	Strategic Business Management & HRM (E)	2.5	5	1
SFM	Strategic Facility Management	Strategic Facility Management	2.5	5	3
SIM	Energy & Building Simulation	Energy & Building Simulation (elective)*	2.5	5	3
SM	Security Management	Security Management (elective)*	2.5	5	2
ST	International Facility Management & Real Estate Development - Practice, Research & Study Trip	International Facility Management & Real Estate Development - Practice, Research & Study Trip	2	3	4
VAL	Property Valuation	Property Valuation	2.5	5	2
WS	International Facility Management & Real Estate Development	International Facility Management & Real Estate Development - Project (E)	2.5	5	3
ZERT	Sustainable Building Certification	Sustainable building certification (elective)*	2.5	5	3
			49.5	120	

2.2.1 Curriculum Matrix

1st semester

Module designation	Course type	T	E	eLV	WSH	No. of groups	AWSH	ALVS	MODULE	ECTS
Construction Management	ILV	X		30%	2.5	1	2.5	37.5	BM	5
Compendium Facility Management	ILV	X		30%	2.5	1	2.5	37.5	FMK	5
Compendium Real Estate Industry	ILV			30%	2.5	1	2.5	37.5	IWK	5
Project Management	ILV			30%	2.5	1	2.5	37.5	PM	5
Regional & Real Estate Economics	ILV			30%	2.5	1	2.5	37.5	RIM	5
Strategic Business Management & HRM (E)	ILV		X	30%	2.5	1	2.5	37.5	SBM	5
Total line:					15.0		15.0	225.0		30
Course hours = Total WSH x course weeks					225.0					

2nd semester

Module designation	Course type	T	E	eLV	WSH	No. of groups	AWSH	ALVS	MODULE	ECTS
Asset & Portfolio Management (elective)*	ILV			30%	2.5	1	2.5	37.5	APM	5
Environmental Services & Bioeconomy (elective)*	ILV			30%	2.5	1	2.5	37.5	CEBE	5
Data Analysis & Empirical Methods	ILV			50%	2.5	1	2.5	37.5	DEM	5
Real Estate Development	ILV	X		30%	2.5	1	2.5	37.5	DEV	5
Investment & Risk Management (E)	ILV		X	30%	2.5	1	2.5	37.5	IRM	5
Mobility Management (elective)*	ILV	X		30%	2.5	1	2.5	37.5	MOB	5
Security Management (elective)*	ILV	X		30%	2.5	1	2.5	37.5	SM	5
Property Valuation	ILV			30%	2.5	1	2.5	37.5	VAL	5
Total line:					15.0		15.0	225.0		30
Course hours = Total WSH x course weeks					225.0					

3rd semester

Module designation	Course type	T	E	eLV	WSH	No. of groups	AWSH	ALVS	MODULE	ECTS
Real Estate Law	ILV			30%	2.5	1	2.5	37.5	IR	5
Marketing & Communication (E)	ILV		X	30%	2.5	1	2.5	37.5	MCO	5
Practical Project	PT			0%	2.5	2	5.0	75.0	PJ	5
Strategic Facility Management	ILV			30%	2.5	1	2.5	37.5	SFM	5
Energy & Building Simulation (elective)*	ILV	X		30%	2.5	1	2.5	37.5	SIM	5
International Facility Management & Real Estate Development - Project (E)	ILV	X	X	30%	2.5	2	5.0	75.0	WS	5
Sustainable building certification (elective)*	ILV	X		30%	2.5	1	2.5	37.5	ZERT	5
Total line:					15.0		20.0	300.0		30
Course hours = Total WSH x course weeks					225.0					

4th semester

Module designation	Course type	T	E	eLV	WSH	No. of groups	AWSH	ALVS	MODULE	ECTS
Master thesis & colloquium	ILV			50%	1	1	1	15	MA	24*
Practice & Research Transfer	ILV			30%	1.5	1	1.5	22.5	PFE	3
International Facility Management & Real Estate Development - Practice, Research & Study Trip	ILV			30%	2	1	2	30	ST	3
Total line:					4.5		4.5	67.5		30
Course hours = Total WSH x course weeks					67.5					

* The 24 ECTS for the Master thesis & colloquium are divided into 20 ECTS for the Master thesis, 2 ECTS for the colloquium and 2 ECTS for the final examination.

Abbreviations	
----------------------	--

eLV	E-learning proportion of course in percent
E	Lecture in English language
ECTS	ECTS – Credit points
LV	Course
LVS	Course hour(s)
WSH	Weekly semester hour(s)
T	Lecture with technical background
WP	Elective subject

Summary of curriculum data

Description	WSH	AWSH	ALVS	ECTS
Total number of courses over all semesters	49.5	54.5	817.5	120
Total number of courses in 1st year of study	30	30	450	60
Total number of courses in 2nd year of study	19.5	24.5	367.5	60
Total number of courses in 3rd year of study				
Total number of technical events over all semesters	17.5			35
Percentage of technical courses over all semesters based on WSH / ECTS	35.35%			29.17%
Total number of courses in English over all semesters	10			20
Proportion of courses in English over all semesters based on WSH / ECTS	20.2%			16.67%
Proportion of eLearning units over all semesters based on WSH / ECTS	29.9%			33.58%

2.3 Module descriptions

Module number:	Construction Management	Scope:	
BM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: Real Estate Management Module Compendium		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<u>Construction management /ILV / Course no.: BM / 1st semester / ECTS: 5</u> <ul style="list-style-type: none"> • Ahrens, H., Bastian, K., Muchowski, L., 2014. Handbuch Projektsteuerung-Baumanagement, Stuttgart, Fraunhofer IRB Verlag • Fellner, T., 2017. Baubetriebslehre / Baubetrieb und Baumanagement, Band 1-3, Wien, Hölzel Verlag • Girmscheid, G., 2007. Projektentwicklung in der Bauwirtschaft / Wege zur Win-Win-Situation für Auftraggeber und Auftragnehmer, Berlin, Springer • Kochendörfer, B., Liebchen, J.H., Viering, M.G., 2010. Bau-Projektmanagement / Grundlagen und Vorgehensweisen, Wiesbaden, Vieweg & Teubner • Schneider, W., Volkmann, W., 2017. Prozessorientiertes Bauprojektmanagement, Berlin, Springer Vieweg 		
Skills acquisition	<u>Construction management /ILV / Course no.: BM / 1st semester / ECTS: 5</u> The students are able to: <ul style="list-style-type: none"> • define requirements and objectives of construction projects • prepare construction projects in new or existing buildings and to supervise them during implementation • analyze project documents (costs/deadlines/quality) or to prepare them independently • classify private law principles according to the Austrian Civil Code (ABGB) and the norm standards 		
Course contents	<u>Construction management /ILV / Course no.: BM / 1st semester / ECTS: 5</u> <ul style="list-style-type: none"> • Project organization and performance profiles • Cost, schedule and quality planning • Planning phases and contents • Contracts and claim management • Construction defects and structural damage • Tools of project management or object planning (BIM) 		
Teaching and learning methods	<u>Construction management /ILV / Course no.: BM / 1st semester / ECTS: 5</u> Blended Learning		
Evaluation Methods Criteria	<u>Construction management /ILV / Course no.: BM / 1st semester / ECTS: 5</u> Written exam		

Module number:	Facility Management Compendium	Scope:	
FMK		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: no		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Compendium of Facility Management /ILV / Course no.: FMK / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Gondring, H., and T. Wagner, 2018. Facility Management: Handbuch für Studium und Praxis. 3rd completely revised edition. Munich: Vahlen • Nävy, J. and M. Schröter, 2013. Facility Services - Die operative Ebene des Facility Managements. Berlin: Springer Vieweg • Kaiser, C., Nusser, J., and f. Schrammel, 2018. Praxishandbuch Facility Management. Wiesbaden: Springer Vieweg • Daniels, K., 2003. Advanced Building Systems: A Technical Guide for Architects and Engineers. Basle: Birkhäuser • Schröder, W., 2010. Ganzheitliches Instandhaltungsmanagement: Aufbau, Ausgestaltung und Bewertung. Wiesbaden: Gabler 		
Skills acquisition	<p><u>Compendium of Facility Management /ILV / Course no.: FMK / 1st semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • define terms in the complex themes of facility management and explain them with technical vocabulary • recognize and understand interrelationships in facility management • describe different views, processes and models in facility management and various facility services • formulate and compare service level agreements/tenders for various facility services • name requirements for implementing operator responsibility and legal requirements in FM 		
Course contents	<p><u>Compendium of Facility Management /ILV / Course no.: FMK / 1st semester / ECTS: 5</u></p> <p>Facility Management</p> <ul style="list-style-type: none"> • Definitions and international perspectives • Processes and quality management • User/customer satisfaction • Benchmarking • Computer-aided facility management <p>Basics of legal relationships in facility management (rights and standards)</p> <ul style="list-style-type: none"> • Tendering of services • Specifications: Service Level Agreements and Key Performance Indicators • Operator responsibility and building operation <p>Technical building management</p> <ul style="list-style-type: none"> • Comfort criteria • Maintenance strategies • Energy management/ contracting • Heating, ventilation, air conditioning, transport, electrical and sanitary engineering <p>Infrastructural building management</p> <ul style="list-style-type: none"> • Cleaning management • Relocation management incl. space management 		
Teaching and learning methods	<p><u>Compendium of Facility Management /ILV / Course no.: FMK / 1st semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Compendium of Facility Management /ILV / Course no.: FMK / 1st semester / ECTS: 5</u></p> <p>Written exam</p>		

Module number:	Real Estate Industry Compendium	Scope:	
		5	ECTS
IWK			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: no		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Compendium of the Real Estate Industry /ILV / Course no.: IWK / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Gondring,H. and T. Wagner (Eds.), 2010. Real Estate Asset Management - Handbuch für Praxis, Aus- und Weiterbildung. 1st edition. Munich: Vahlen. • Malloth, T. (publisher), 2013. Immobilienmanagement Österreich, ÖVI Wien. 5th edition. • Artner, S., Kohlmaier, K., et al., 2017. Praxishandbuch Immobilienrecht. 2nd edition. Vienna: Linde • Riccabona, C, Mezera, K. (2010): Baukonstruktionslehre 2 bis 5, latest edition. Vienna: Manz • Bienert, S. and M. Funk, M., et al., 2020. Immobilienbewertung Österreich. 4th edition. Vienna: ÖVI • Klaubetz, E. et. al., 2016. Handbuch Immobilienprojektentwicklung. Vienna: Linde 		
Skills acquisition	<p><u>Compendium of the Real Estate Industry /ILV / Course no.: IWK / 1st semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • recognize, understand and analyze real estate economic connections • classify and understand legal connections in the real estate industry • classify and understand economic connections in the real estate industry • identify and understand relevant sources of information in the real estate industry • recognize and interpret components and building materials • describe and apply the basics of real estate valuation • describe and apply the basics of project development • describe and apply the basics of building management 		
Course contents	<p><u>Compendium of the Real Estate Industry /ILV / Course no.: IWK / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Property analysis (relevant documents about the property) and others: <ul style="list-style-type: none"> o Land register and cadastre o Zoning plans, submission plans and development regulations o Area definitions • Basic knowledge of financial mathematics and real estate key figures • Basic construction principles (building materials and constructions) • Basic knowledge of MRG and WEG • Basic principles of real estate valuation • Basic principles of project development • Basic principles of building management 		
Teaching and learning methods	<p><u>Compendium of the Real Estate Industry /ILV / Course no.: IWK / 1st semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Compendium of the Real Estate Industry /ILV / Course no.: IWK / 1st semester / ECTS: 5</u></p> <p>Written exam</p>		

Module number:	Project management	Scope:	
PM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: no		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Project Management /ILV / Course no.: PM / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Patzak, G., Rattay, G., 2017, Projektmanagement: Leitfaden zum Management von Projekten, Projektportfolios und projektorientierten Unternehmen, Wien, Linde • PMI (publisher), 2017, PMBOK - Project Management Body of Knowledge, 6th Edition, Newtown Square, PMI • Preußig, J. (2018). Agiles Projektmanagement: Agilität und Scrum im klassischen Projektumfeld, Freiburg, Haufe Verlag • Timinger, H. (2017). Modernes Projektmanagement: Mit traditionellem, agilem und hybridem Vorgehen zum Erfolg, Weinheim, Wiley Verlag 		
Skills acquisition	<p><u>Project Management /ILV / Course no.: PM / 1st semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • Define various tasks in project management • Define and structure project organizations • Independently create project plans • Develop and implement a project controlling system • Respond agilely to problems and obstacles depending on the situation • Lead projects in different fields to success 		
Course contents	<p><u>Project Management /ILV / Course no.: PM / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Tasks, tools and methods of project management • Organization: Structural, process and project organization • Schedule, cost and quality management • Resource management • Communication and integration • Risk management 		
Teaching and learning methods	<p><u>Project Management /ILV / Course no.: PM / 1st semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Project Management /ILV / Course no.: PM / 1st semester / ECTS: 5</u></p> <p>Project and examination</p>		

Module number:	Regional & Real Estate Economics	Scope:	
RIM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: no		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Regional & Real Estate Economics /ILV / Course no.: RIM / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Gunther Maier und Franz Tödting 2006. Regional- und Städtökonomie 1, Standorttheorie und Raumstruktur. Jahrbuch für Regionalwissenschaft. Springer • Schulte, K. 2008. Immobilienökonomie: Band IV: Volkswirtschaftliche Grundlagen. de Gruyter • Krugman, P. et al. 2011. Internationale Wirtschaft: Theorie und Politik der Außenwirtschaft. Pearson Studium - Economic BWL 		
Skills acquisition	<p><u>Regional & Real Estate Economics /ILV / Course no.: RIM / 1st semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • understand essential concepts of regional economics as well as theoretical approaches to the growth of regions • understand the role of space in economic analyses and to reflect on how models of regional development are applied in Austria as well as in the EU • identify and structure relevant economic-geographical problems, understand the specificity of spatial data, as well as to select and identify different procedures for the identification, visualization and evaluation of regional economic phenomena • identify, understand and analyze real estate markets • name economic analysis methods and apply them to the real estate industry 		
Course contents	<p><u>Regional & Real Estate Economics /ILV / Course no.: RIM / 1st semester / ECTS: 5</u></p> <p>Principles of regional economics</p> <ul style="list-style-type: none"> • Introduction to theoretical approaches to the growth of regions • Principles of location selection as well as urban and regional development • Aims and tools of Austrian and European regional policy • Advancing real estate aspects of regional economics <p>Application of spatial information in regional economics</p> <ul style="list-style-type: none"> • Introduction to methods for analyzing regional economic interrelationships • Introduction to empirical research and special features of spatial data, spatial econometrics <p>Principles of real estate economics</p> <ul style="list-style-type: none"> • Basics and consolidation real estate economics • Economic significance of real estate markets • Macroeconomics, microeconomics and real estate markets • Portfolio theory in the real estate industry • Demographic development and the significance in the real estate industry • Price bubbles in the real estate industry 		
Teaching and learning methods	<p><u>Regional & Real Estate Economics /ILV / Course no.: RIM / 1st semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Regional & Real Estate Economics /ILV / Course no.: RIM / 1st semester / ECTS: 5</u></p> <p>Seminar thesis and examination</p>		

Module number:	Strategic Business Management & HRM	Scope:	
SBM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	1st semester		
Level	1st semester: Introduction and consolidation		
Previous knowledge	1st semester: no		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Strategic Business Management & HRM (E) /ILV / Course no.: SBM / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Thommen, J.-P., ed., et al., 2017. Allgemeine Betriebswirtschaftslehre: Umfassende Einführung aus management-orientierter Sicht. 8th Edition Wiesbaden: Springer Gabler • Horváth, P., 2004. Die Strategieumsetzung erfolgreich steuern. Stuttgart: Schäffer-Poeschel • Holtbrügge, D., 2018. Personalmanagement. 7th Edition Berlin: Springer • Stöger, R., 2016. Die Toolbox für Manager: Strategie, Innovation, Organisation, Produktivität, Projekte, Change. 2nd expanded edition. Stuttgart: Schäffer-Poeschel 		
Skills acquisition	<p><u>Strategic Business Management & HRM (E) /ILV / Course no.: SBM / 1st semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • carry out and communicate strategic analyses and planning with appropriate management tools • develop a corporate strategy and design the corresponding implementation process • explain technical terms and areas of responsibility of personnel management • describe and compare different management styles • apply and implement methods and solution strategies in personnel management and in organizational and personnel development • discuss options of Corporate Social Responsibility (CSR) at the workplace 		
Course contents	<p><u>Strategic Business Management & HRM (E) /ILV / Course no.: SBM / 1st semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Strategic Business Management <ul style="list-style-type: none"> o strategic pyramid (mission, vision and mission statement, goals, strategies) o strategic models, decision theories and competitive strategies o tools of strategic analysis and planning (e.g. SWOT, portfolio analysis) • Human Resource Management <ul style="list-style-type: none"> o tasks of human resources work and personnel planning o personnel costs including key figures, salary increase, participation models, forms of remuneration o personnel assessment, motivation theories and personnel development o leadership theories o Corporate Social Responsibility (CSR) at the workplace 		
Teaching and learning methods	<p><u>Strategic Business Management & HRM (E) /ILV / Course no.: SBM / 1st semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Strategic Business Management & HRM (E) /ILV / Course no.: SBM / 1st semester / ECTS: 5</u></p> <p>Seminar thesis</p>		

Module number:	Asset & Portfolio Management	Scope:	
		5	ECTS
APM			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Asset & Portfolio Management (elective)* /ILV / Course no.: APM / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Uddin, W., W. Hudson and R. Haas, 2013. Public Infrastructure Asset Management. New York: McGraw-Hill Education • Balzer, G., Schorn, C., 2020. Asset Management für Infrastrukturanlagen - Energie und Wasser. 3rd edition. Wiesbaden: Springer Vieweg • Gondring, H., Wagner, T. (publisher), 2010. Real Estate Asset Management - Handbuch für Praxis, Aus- und Weiterbildung. 1st edition. Munich: Vahlen. • Malloth, T. (publisher), 2013. Immobilienmanagement Österreich. 5th edition. Vienna: ÖVI 		
Skills acquisition	<p><u>Asset & Portfolio Management (elective)* /ILV / Course no.: APM / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • Identifying potential for increasing the value of properties and portfolios • Planning and coordinating due diligence • Defining and evaluating property and portfolio-related optimization measures • Preparing commercial budgeting for inventories • Preparing and analyzing investment decisions 		
Course contents	<p><u>Asset & Portfolio Management (elective)* /ILV / Course no.: APM / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Performance profiles and requirements, occupational profiles • Capital market theories and objects as asset classes • Performance measurement • Due Diligence process • Investment and potential analyses • Asset management 		
Teaching and learning methods	<p><u>Asset & Portfolio Management (elective)* /ILV / Course no.: APM / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Asset & Portfolio Management (elective)* /ILV / Course no.: APM / 2nd semester / ECTS: 5</u></p> <p>Project</p>		

Module number:	Recycling Management & Bioeconomy	Scope:	
		5	ECTS
CEBE			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: basic business administration knowledge at Bachelor level		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Environmental Services & Bioeconomy(elective)* /ILV / Course no.: CEBE / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Bilitewski, B., and G. Härdtle, 2013. Abfallwirtschaft: Handbuch für Praxis und Lehre. 4th edition Berlin, Heidelberg: Springer Vieweg • Kranert, M., 2017. Einführung in die Kreislaufwirtschaft: Planung-Recht-Verfahren. 5th edition Wiesbaden: Springer Vieweg • Frötsch, G., and H. Meinholz, 2015. Handbuch Betriebliche Kreislaufwirtschaft. Wiesbaden: Springer Spektrum • Pietzsch, J. (publisher), 2017. Bioökonomie für Einsteiger. Heidelberg: Springer Spektrum 		
Skills acquisition	<p><u>Environmental Services & Bioeconomy(elective)* /ILV / Course no.: CEBE / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • explain and delimit models and technical terms in the circular economy and bio-economy • demonstrate the connection between sustainability goals as well as the circular economy and bio-economy • describe the central topics of waste management • evaluate the life cycle of products • classify the use of renewable raw materials and carbon cycles • describe and evaluate the differences between a linear economic model and the circular economy • show the connection between energy policy decisions and the circular economy and bio-economy 		
Course contents	<p><u>Environmental Services & Bioeconomy(elective)* /ILV / Course no.: CEBE / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Technical and biological cycle for products • Life cycle analysis (costs, energy, CO2) • Economic models • Political measures in connection with the circular economy and bioeconomy • Waste management 		
Teaching and learning methods	<p><u>Environmental Services & Bioeconomy(elective)* /ILV / Course no.: CEBE / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Environmental Services & Bioeconomy(elective)* /ILV / Course no.: CEBE / 2nd semester / ECTS: 5</u></p> <p>Seminar thesis and examination</p>		

Module number:	Data Analysis & Empirical Methods	Scope:	
DEM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: academic methods and empirical methods at Bachelor level		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Data Analysis & Empirical Methods /ILV / Course no.: DEM / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • James, G., Witten, D., Hastie, T., Tibshirani, R. 2013. An Introduction to Statistical Learning with Applications in R. Springer. New York. • Chakrabarti, A., L. Pichl and T. Kaizoji (publisher), 2019. Network Theory and Agent-Based Modeling in Economics and Finance. Singapore: Springer Nature • Stocker, H. 2014. Ökonometrie: Fundamentals and methods. Pearson Studium - Economic VWL • Fahrmeir, L., R. Künstler, I. Pigeot, I. and G. Tutz, 2012. Statistics: Der Weg zur Datenanalyse. 7th edition. Berlin: Springer • Fahrmeir, L., Kneib, T. and Lang, S., 2009. Regression: Modelle, Methoden und Anwendungen. 2nd edition. Berlin: Springer • Heisen, M. R., Theisen, M., 2017. Wissenschaftliches Arbeiten: erfolgreich bei Bachelor- und Masterarbeit. Munich: Franz Vahlen 		
Skills acquisition	<p><u>Data Analysis & Empirical Methods /ILV / Course no.: DEM / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • understand connections between research practice and fact-based decision-making processes in professional practice • understand the role of basic theoretical assumptions and concepts in the research process and research design • assess the strengths and applications of qualitative and quantitative methods for empirical research and to apply them in an exemplary manner • independently collect data sets with empirical methods • independently structure data sets, to analyze, present and critically evaluate information • select and implement methods of data analysis in the context of a specific problem • understand and apply concepts and methods of descriptive and explorative statistics as well as predictive data analysis • understand special requirements for data preparation and data storage • present and critically evaluate information 		
Course contents	<p><u>Data Analysis & Empirical Methods /ILV / Course no.: DEM / 2nd semester / ECTS: 5</u></p> <p>Empirical methods and academic methods</p> <ul style="list-style-type: none"> • research practice and fact-based decisions • qualitative and quantitative methods, research design and forms of data collection (e.g. interview, questionnaire, observation, field and laboratory study, experiment, simulation) • basics exposé for the Master thesis <p>Data Analysis</p> <ul style="list-style-type: none"> • univariate and multivariate data analysis • predictive statistical data analysis (Machine Learning) and methodology of inferential statistics • probability theory, information theory, Bayes Theorem • system dynamics and agenda-based modelling • application of methods of data analysis • presentation and visualization of data 		
Teaching and learning methods	<p><u>Data Analysis & Empirical Methods /ILV / Course no.: DEM / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Data Analysis & Empirical Methods /ILV / Course no.: DEM / 2nd semester / ECTS: 5</u></p> <p>Portfolio</p>		

Module number:	Real Estate Development	Scope:	
		5	ECTS
DEV			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Consolidation		
Previous knowledge	2nd semester: Compendium Real Estate Management module Construction Management module		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Real Estate Development /ILV / Course no.: DEV / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Blecken, U., Meinen, H., et al., 2014, Praxishandbuch Projektentwicklung: Immobilienwirtschaftliche Grundsätze – Planerischer und rechtlicher Rahmen – Finanzierung und Bewertung – Vermarktung und Betrieb, Köln, Reguvis Fachmedien • Diederichs, C., 2006, Immobilienmanagement im Lebenszyklus: Projektentwicklung, Projektmanagement, Facility Management, Immobilienbewertung, Berlin, Springer • Kallinger, W., Gartner, H., Stingl, W., 2011, Bauträger and Projektentwickler: Immobilien erfolgreich Entwickeln, Sanieren und Verwerten, Wien, MANZ • Schäfer, J., Conzen, G., 2013, Praxishandbuch der Immobilien-Projektentwicklung, München, C.H.Beck 		
Skills acquisition	<p><u>Real Estate Development /ILV / Course no.: DEV / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • identify and explain complex dependencies and impact of actors and framework conditions in real estate development • recognize, analyze and classify framework conditions under building law • explain and critically review property designs using examples • list real estate financing aspects in a problem-oriented manner, discuss and critically review solution strategies • list economic aspects, discuss and critically review solution strategies 		
Course contents	<p><u>Real Estate Development /ILV / Course no.: DEV / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Actors and framework conditions in real estate project development, stakeholder analyses • Application-oriented exercises on location analysis and utilization under building law • Application-oriented exercises on building structure, space efficiency and space optimization • Profitability analyses in real estate project development and risk analyses • Working on a comprehensive practice-oriented task • Selected special topics depending on the respective practice project 		
Teaching and learning methods	<p><u>Real Estate Development /ILV / Course no.: DEV / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Real Estate Development /ILV / Course no.: DEV / 2nd semester / ECTS: 5</u></p> <p>Project and examination</p>		

Module number:	Investment & Risk Management	Scope:	
		5	ECTS
IRM			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<u>Investment & Risk Management (E) /ILV / Course no.: IRM / 2nd semester / ECTS: 5</u> <ul style="list-style-type: none"> • Hull, J.: Risk Management and Financial Institutions, 5th edition, Wiley, 2018 • Hull, J.: Options, Futures, and Other Derivatives, Global Edition, 9th edition, Pearson, 2017 • Geyer, A., Hanke, M., Littich, E., Nettekoven, M.: Grundlagen der Finanzierung, 5th edition, Vienna: Manz, 2015 		
Skills acquisition	<u>Investment & Risk Management (E) /ILV / Course no.: IRM / 2nd semester / ECTS: 5</u> The students are able to: <ul style="list-style-type: none"> • Understand and apply investment calculations and life cycle costing • Understand and apply credit financing • Identify financial institutions and analyze their interrelationships • Identify and critically reflect on financial assets • Identify and apply financing methods and valuations for infrastructure and real estate 		
Course contents	<u>Investment & Risk Management (E) /ILV / Course no.: IRM / 2nd semester / ECTS: 5</u> <ul style="list-style-type: none"> • Investment calculation and life cycle costing (dynamic and modern approaches) • Credit financing (loans, bonds) • Equity financing (shares) • Financial institutions • Derivatives • Market risk and management • Behavioral economics • Financing and valuation of infrastructure and real estate 		
Teaching and learning methods	<u>Investment & Risk Management (E) /ILV / Course no.: IRM / 2nd semester / ECTS: 5</u> Blended Learning		
Evaluation Methods Criteria	<u>Investment & Risk Management (E) /ILV / Course no.: IRM / 2nd semester / ECTS: 5</u> Written exam		

Module number:	Mobility Management	Scope:	
MOB		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Mobility Management (elective)* /ILV / Course no.: MOB / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Flügge, B. (publisher) 2020. Smart Mobility - Trends, Konzepte, Best Practices für die intelligente Mobilität. Wiesbaden: Springer Vieweg • Gather, M., et al (publisher). Studien zur Mobilitäts- und Verkehrsforschung (series). Wiesbaden: VS Verlag für Sozialwissenschaften • Vallée, D., Ennel, B., Vort, W. (publisher). Stadtverkehrsplanung Volumes 1-3. Wiesbaden: Springer Vieweg 		
Skills acquisition	<p><u>Mobility Management (elective)* /ILV / Course no.: MOB / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • describe social aspects of mobility • name options and requirements for infrastructure (incl. energy supply) for sustainable mobility and to argue with key figures • analyze approaches for economic and strategic implementation and to develop them independently 		
Course contents	<p><u>Mobility Management (elective)* /ILV / Course no.: MOB / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Social aspects of mobility • Infrastructure for sustainable mobility • Economic and strategic implementation • Analysis of international and national mobility projects • Exemplary development of sustainable mobility concepts 		
Teaching and learning methods	<p><u>Mobility Management (elective)* /ILV / Course no.: MOB / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Mobility Management (elective)* /ILV / Course no.: MOB / 2nd semester / ECTS: 5</u></p> <p>Portfolio</p>		

Module number:	Security Management	Scope:	
SM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Introduction and consolidation		
Previous knowledge	2nd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Safety management (elective)* /ILV / Course no.: SM / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Gartner, H., Kothbauer, C., and K. Poschalko., 2018. Haftung für Gebäudesicherheit. Vienna: MANZ Verlag • Swoboda, M., and A. Schwarz-Hausmann, 2018. Praxishandbuch Brandschutz: Rechtliche und technische Grundlagen, Umsetzung, Haftungen. 3. Aufl..Brunn am Gebirge: TÜV Austria Fachverlag • Mayr, J., and L. Battran, 2011. Handbuch Brandschutzatlas: Grundlagen Planung Ausführung, Köln: Feuertrutz 		
Skills acquisition	<p><u>Safety management (elective)* /ILV / Course no.: SM / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • analyze different dangers in infrastructure, object and building security and derive protective measures • develop risk analyses and emergency plans • describe and apply the tasks of a security officer 		
Course contents	<p><u>Safety management (elective)* /ILV / Course no.: SM / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Occupational health and safety <ul style="list-style-type: none"> o Workplace design and evaluation o Dangerous working materials o Rights and duties of employees and employers o Tasks (focus on safety) of preventive services, Safety officers and works council • Fire protection • Perimeter security and burglary protection • Risk analyses and business continuity management • Property security checks • Security concepts 		
Teaching and learning methods	<p><u>Safety management (elective)* /ILV / Course no.: SM / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Safety management (elective)* /ILV / Course no.: SM / 2nd semester / ECTS: 5</u></p> <p>Written exam</p>		

Module number:	Property Valuation	Scope:	
VAL		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	2nd semester		
Level	2nd semester: Consolidation		
Previous knowledge	2nd semester: Real Estate Management Module Compendium		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Property Valuation /ILV / Course no.: VAL / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Kranewitter, H., 2017. Liegenschaftsbewertung. 7th edition. Vienna: Manz • Seiser, F., F. Kainz, F., 2011. Der Wert von Immobilien. 1st edition. Graz: Seiser+Seiser Immobilien Consulting • Bienert, S. and M. Funk, M., et al., 2020. Immobilienbewertung Österreich. 4th edition. Vienna: ÖVI • Kleiber, W., 2016. Verkehrswertermittlung von Grundstücken. 8th edition. Cologne: Bundesanzeiger Verlag • Sachverständige: offizielles Organ des Hauptverbandes der Allgemein Beeideten und Gerichtlich Zertifizierten Sachverständigen Österreichs, Linde • TEGoVA (2016): European Valuation Standards EVS 2016, TEGoVA 		
Skills acquisition	<p><u>Property Valuation /ILV / Course no.: VAL / 2nd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • apply and critically analyze national and international valuation procedures • analyze specific approaches or particularities of different types of real estate • carry out independent valuations of different types of real estate • identify and classify non-standardized procedures 		
Course contents	<p><u>Property Valuation /ILV / Course no.: VAL / 2nd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Expansion and specifics of national valuation procedures • Expansion and specifics of real estate valuation according to different types of property • Valuation of rights and encumbrances • International valuation procedures • Non-standardized procedures (e.g. Hedonic Pricing, Monte Carlo simulation in valuation etc.) 		
Teaching and learning methods	<p><u>Property Valuation /ILV / Course no.: VAL / 2nd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Property Valuation /ILV / Course no.: VAL / 2nd semester / ECTS: 5</u></p> <p>Written exam</p>		

Module number:	Real Estate Law	Scope:	
IR		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Consolidation		
Previous knowledge	3rd semester: Real Estate Management Module Compendium		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Property law /ILV / Course no.: IR / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Grooterhorst, J., Becker, U., Dreyer, R., Törnig, T.: Rechtshandbuch Immobilien- Asset-Management, Cologne: Bundesanzeiger, 2009 • Dirnbacher, W.: MRG 2013 as amended by ZVG. Vienna: ÖVI, 2013 • Dirnbacher, W.: WEG idF WRN 2009. Vienna: ÖVI, 2013 • Prader, C.: WGG-Wohnungsgemeinnützigkeitsgesetz und Bauträgervertragsgesetz. Manz Verlag, Vienna: Manz, 2012 • Najork, E., et al., 2009. Rechtshandbuch Facility Management. 1st edition. Berlin: Springer 		
Skills acquisition	<p><u>Property law /ILV / Course no.: IR / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • understand complex areas of law in the Tenancy Law Act and Condominium Act and analyze them accordingly • identify and understand tax aspects in the real estate industry and derive recommendations for action on this basis • identify and understand areas of law in real estate transactions and derive recommendations for action based on this • identify, analyze and critically evaluate current legal issues in the real estate industry • classify FM-relevant legal areas in the holistic project context and derive recommendations for action • identify, analyze and critically evaluate current FM-relevant legal issues 		
Course contents	<p><u>Property law /ILV / Course no.: IR / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Tenancy Law Act • Condominium Act • Taxation of Real Estate • Legal issues in real estate transactions • Trends in current areas of law • Work and service contracts • Maintenance and repair contracts • FM contracts • Outsourcing contracts / labor law / transfer of business • Legal issue of "operator responsibility" 		
Teaching and learning methods	<p><u>Property law /ILV / Course no.: IR / 3rd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Property law /ILV / Course no.: IR / 3rd semester / ECTS: 5</u></p> <p>Written exam</p>		

Module number:	Marketing & Communications	Scope:	
MCO		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Introduction and consolidation		
Previous knowledge	3rd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Marketing & Communications (E) /ILV / Course no.: MCO / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Homburg, C., 2017, Marketing Management. Strategie – Instrumente - Umsetzung - Unternehmensführung, 6th edition, Wiesbaden, Springer Gabler • Benighaus, C., Wachinger, G., Renn, O., 2016. Citizen participation: Concepts and possible solutions in practice. Frankfurt am Main: Wolfgang Metzner Verlag • Sommer, J. (publisher). Kursbuch Bürgerbeteiligung (Reihe). Osnabrück: Verlag der Deutschen Umweltstiftung • Koschany-Rohbeck, M. 2018. Praxishandbuch Wirtschaftsmediation. Berlin: Springer Gabler • Schweizer, A und S. Kracht. Konfliktlösung ohne Gericht - Wirtschaftsmediation, Coaching, Nachhaltigkeit (Band 1-3). Berlin: BWV Wissenschaft-Verlag 		
Skills acquisition	<p><u>Marketing & Communications (E) /ILV / Course no.: MCO / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • explain conceptual basics and theoretical approaches of strategic marketing • analyze marketing strategies • name phases and solutions for the implementation of marketing strategies • name options for the implementation and monitoring of marketing strategies • define citizen participation procedures • name options for mediation and conflict management 		
Course contents	<p><u>Marketing & Communications (E) /ILV / Course no.: MCO / 3rd semester / ECTS: 5</u></p> <p>Strategic marketing</p> <ul style="list-style-type: none"> • conceptual foundations and theoretical approaches • selected cases marketing strategies • implementation and monitoring of marketing strategies <p>Citizen participation procedures</p> <ul style="list-style-type: none"> • actors and legal foundations • methods for citizen participation • selected cases citizen in citizen participation procedures <p>Business mediation and conflict management</p> <ul style="list-style-type: none"> • theories and concepts • practical applications 		
Teaching and learning methods	<p><u>Marketing & Communications (E) /ILV / Course no.: MCO / 3rd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Marketing & Communications (E) /ILV / Course no.: MCO / 3rd semester / ECTS: 5</u></p> <p>Portfolio</p>		

Module number:	Practical Project	Scope:	
		5	ECTS
PJ			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Consolidation		
Previous knowledge	3rd semester: Module Project Management and all course contents from the 1st, 2nd and 3rd semester		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Practical Project /PT / Course no.: PJ / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Patzak, G., Rattay, G., 2017, Projektmanagement: Leitfaden zum Management von Projekten, Projektportfolios und projektorientierten Unternehmen, Wien, Linde • PMI (publisher), 2017, PMBOK - Project Management Body of Knowledge, 6th Edition, Newtown Square, PMI • Preußig, J. (2018). Agiles Projektmanagement: Agilität und Scrumim klassischen Projektumfeld, Freiburg, Haufe Verlag • Timinger, H. (2017). Modernes Projektmanagement: Mit traditionellem, agilem und hybridem Vorgehen zum Erfolg, Weinheim, Wiley Verlag 		
Skills acquisition	<p><u>Practical Project /PT / Course no.: PJ / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • Independently identify problems and tasks from a given objective • Independently collect and analyze data • Independently develop solutions and present results • Independently develop specialist knowledge to solve specific problems and implement specialist knowledge in a situation-specific manner 		
Course contents	<p><u>Practical Project /PT / Course no.: PJ / 3rd semester / ECTS: 5</u></p> <p>Students must carry out a project of 5 ECTS = 125 h independently in small groups. The basis for this is a set objective. The students are responsible for planning, coordination, budgeting, monitoring, communication and reporting as well as finding solutions. The role of the course leader is focused on coaching the students.</p>		
Teaching and learning methods	<p><u>Practical Project /PT / Course no.: PJ / 3rd semester / ECTS: 5</u></p> <p>Problem and Project Based Learning</p>		
Evaluation Methods Criteria	<p><u>Practical Project /PT / Course no.: PJ / 3rd semester / ECTS: 5</u></p> <p>Project</p>		

Module number:	Strategic Facility Management		Scope:	
SFM			5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time			
Position in the curriculum	3rd semester			
Level	3rd semester: Consolidation			
Previous knowledge	3rd semester: Module Compendium Facility Management			
Blocked	no			
Participant group	Bachelor graduates, beginners			
Literature recommendation	<p><u>Strategic Facility Management /ILV / Course no.: SFM / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Gondring, H. and T. Wagner, 2018. Facility Management: Handbuch für Studium und Praxis. 3rd completely revised edition. Munich: Vahlen • Kummert, K., May, M., and A. Pelzeter, 2013. Nachhaltiges Facility Management. Berlin: Springer • Krimmling, J., 2013. Facility Management: Strukturen und methodische Instrumente. \$.Aufl.. Stuttgart: Fraunhofer-IRB-Verlag • Preuß, N., and L. Schöne, 2010. Real Estate und Facility Management: Aus Sicht der Consultingpraxis. Berlin: Springer • Najork, E., ed. , et al., 2009. Rechtshandbuch Facility Management. Berlin, Heidelberg: Springer 			
Skills acquisition	<p><u>Strategic Facility Management /ILV / Course no.: SFM / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • identify and analyze the interrelationships between core processes and supporting processes • plan the introduction of facility management in companies • explain the legal, statutory and normative framework of facility management • identify, plan and evaluate the control and coordination functions of operational FM services • describe and analyze decision-making criteria on a strategic level in the areas of planning and construction and for processes in the context of facility management • describe and evaluate processes and tasks of holistic and sustainable facility management 			
Course contents	<p><u>Strategic Facility Management /ILV / Course no.: SFM / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Processes in facility management • Operator models • Legal, statutory and normative framework of facility management • Strategic in- and outsourcing 			
Teaching and learning methods	<p><u>Strategic Facility Management /ILV / Course no.: SFM / 3rd semester / ECTS: 5</u></p> <p>Blended Learning</p>			
Evaluation Methods Criteria	<p><u>Strategic Facility Management /ILV / Course no.: SFM / 3rd semester / ECTS: 5</u></p> <p>Seminar thesis</p>			

Module number:	Energy & Building Simulation	Scope:	
SIM		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Introduction and consolidation		
Previous knowledge	3rd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Energy & Building Simulation (elective)* /ILV / Course no.: SIM / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Pistohl, W., 2009. Building services engineering I. Neuwied: Werner • Pistohl, W., 2009. Building services engineering II. Neuwied: Werner • Daniels, K., 2000. Gebäudetechnik. Ein Leitfaden für Architekten und Ingenieure. Munich: Oldenbourg • Willems, W., et al., 2010. Formeln und Tabellen Bauphysik: Wärmeschutz - Feuchteschutz - Klima - Akustik - Brandschutz. Wiesbaden: Vieweg+Teubner • Fouad, N. (publisher), 2000. Bauphysik-Kalender. Berlin: Ernst and Son 		
Skills acquisition	<p><u>Energy & Building Simulation (elective)* /ILV / Course no.: SIM / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • understand, analyze and compare complex energy and building technology systems under dynamic conditions and question them critically • understand and apply building simulation methods • derive different conditions of a building simulation from the corresponding sources and assess the plausibility • select different software for the corresponding areas • question simulation results critically and perform an error analysis 		
Course contents	<p><u>Energy & Building Simulation (elective)* /ILV / Course no.: SIM / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Requirements of building services engineering for building clusters and special properties • Networked building services engineering • Basics of thermal and energetic building and building services engineering simulation • Simulation software • Comparison of static and dynamic consideration 		
Teaching and learning methods	<p><u>Energy & Building Simulation (elective)* /ILV / Course no.: SIM / 3rd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Energy & Building Simulation (elective)* /ILV / Course no.: SIM / 3rd semester / ECTS: 5</u></p> <p>Project</p>		

Module number:	International Facility Management & Real Estate Development	Scope:	
WS		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Consolidation		
Previous knowledge	3rd semester: all content from modules 1., 2., and 3. Semesters		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<u>International Facility Management & Real Estate Development - Project (E) /ILV / Course no. WS / 3rd semester /</u> The literature is based on the project topics dealt with.		
Skills acquisition	<u>International Facility Management & Real Estate Development - Project (E) /ILV / Course no. WS / 3rd semester /</u> The students are able to: <ul style="list-style-type: none"> • create and present ideas and concepts for projects in facility management and real estate management with real or realistic tasks and problems. • work in interdisciplinary, international teams • reflect internationally on different approaches and possible solutions and derive their own knowledge and skills from them 		
Course contents	<u>International Facility Management & Real Estate Development - Project (E) /ILV / Course no. WS / 3rd semester /</u> One blocked compact weeks in small groups with international students: <ul style="list-style-type: none"> • Introduction, consolidation, background and examples in the complex of topics of the project within the framework of a conference or introductory event. • Research and analysis of framework conditions and possibilities • Development and visualization of ideas and concepts • Presentation of the results to stakeholders and/or technical experts 		
Teaching and learning methods	<u>International Facility Management & Real Estate Development - Project (E) /ILV / Course no. WS / 3rd semester /</u> Problem and project-based learning, excursion, conference participation		
Evaluation Methods Criteria	<u>International Facility Management & Real Estate Development - Project (E) /ILV / Course no. WS / 3rd semester /</u> Project		

Module number: ZERT	Sustainable Building Certification	Scope:	
		5	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	3rd semester		
Level	3rd semester: Introduction and consolidation		
Previous knowledge	3rd semester: none		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Sustainable building certification (elective)* /ILV / Course no.: ZERT / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Wallbaum, H., Kytzia, S., and S. Kellenberger, 2011. Nachhaltig Bauen: Lebenszyklus, Systeme, Szenarien, Verantwortung. Zürich: Vdf Hochschulverlag • König, H., ed. , et al., 2009. Lebenszyklusanalyse in der Gebäudeplanung: Grundlagen - Berechnung - Planungswerkzeuge. Munich: Ins. f. Int. Architektur • Kummert, K., May, M., and A. Pelzeter, 2013. Nachhaltiges Facility Management. Berlin, Heidelberg: Springer Vieweg 		
Skills acquisition	<p><u>Sustainable building certification (elective)* /ILV / Course no.: ZERT / 3rd semester / ECTS: 5</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • identify and analyze requirements for a sustainable building in all planning phases • compare different national and international certification systems and methods of certification • describe the process of certification systems • prepare life cycle analyses and life cycle assessments • explain ecological, economic and socio-cultural criteria of sustainability in relation to buildings 		
Course contents	<p><u>Sustainable building certification (elective)* /ILV / Course no.: ZERT / 3rd semester / ECTS: 5</u></p> <ul style="list-style-type: none"> • Requirements for a sustainable building in the planning and construction process as well as in operation • Life cycle analyses • National and international certification systems • Ecological, economic and socio-cultural sustainability criteria in relation to buildings (e.g. flexibility and conversion capability) 		
Teaching and learning methods	<p><u>Sustainable building certification (elective)* /ILV / Course no.: ZERT / 3rd semester / ECTS: 5</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Sustainable building certification (elective)* /ILV / Course no.: ZERT / 3rd semester / ECTS: 5</u></p> <p>Project and seminar thesis</p>		

Module number:	Master thesis & colloquium	Scope:	
MA		24	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	4th semester		
Level	4th semester: Consolidation		
Previous knowledge	4th semester: Module Data Analysis & Empirical Methods and contents from the modules with cross connections to the topic of the master thesis of the semesters 1 to 3		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>Master thesis & colloquium /ILV / Course no.: MA / 4th semester / ECTS: 24</u></p> <ul style="list-style-type: none"> • Heisen, M. R. and M. Theisen, 2017. Wissenschaftliches Arbeiten: erfolgreich bei Bachelor- und Masterarbeit. Munich: Franz Vahlen • Sandberg, B., 2017. Wissenschaftliches Arbeiten von Abbildung bis Zitat: Lehr- und Übungsbuch für Bachelor, Master und Promotion. 3rd edition. Berlin, Boston: De Gruyter Oldenbourg • Reinders, H. et al., 2011. Empirische Bildungsforschung: Strukturen und Methoden. Wiesbaden: VS Verlag für Sozialwissenschaften 		
Skills acquisition	<p><u>Master thesis & colloquium /ILV / Course no.: MA / 4th semester / ECTS: 24</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • independently prepare and elaborate a subject-specific topic as well as review and apply it using scientific methods • carry out complex scientific research projects • apply scientific and research methods • apply the basics of academic methods • present scientific facts • critically question scientific findings • independently write a scientific paper at the level of a Master thesis 		
Course contents	<p><u>Master thesis & Colloquium /ILV / Course no.: MA / 4th semester / ECTS: 24</u></p> <p>Students must independently complete a Master thesis of 20 ECTS = 500 h. Regular meetings to discuss the current status and progress of the Master thesis with the accompanying academic supervision serve as support.</p> <p>In the context of a colloquium with the scope of 2 ECTS = 50h, the following course contents are dealt with:</p> <ul style="list-style-type: none"> • Independent preparation and elaboration of an interdisciplinary subject • Finding and substantiation of the methodology • Content-related and organizational support for the preparation of the Master thesis • Presenting and defending academic papers • Leading discussions on academic papers <p>• Information on the final Master's examination</p> <p>The preparation for the final examination is included with 2 ECTS = 50h.</p>		
Teaching and learning methods	<p><u>Master thesis & Colloquium /ILV / Course no.: MA / 4th semester / ECTS: 24</u></p> <p>Blended Learning</p>		
Evaluation Methods Criteria	<p><u>Master thesis & Colloquium /ILV / Course no.: MA / 4th semester / ECTS: 24</u></p> <p>Master thesis and presentation</p>		

Module number:	Practice & Research Transfer	Scope:	
		3	ECTS
PFE			
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	4th semester		
Level	4th semester: Consolidation		
Previous knowledge	4th semester: Module Data Analysis & Empirical Methods		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<u>Practice & Research Transfer /ILV / Course no.: PFE / 4th semester / ECTS: 3</u> current professional articles, professional journals and project reports		
Skills acquisition	<u>Practice & Research Transfer /ILV / Course no.: PFE / 4th semester / ECTS: 3</u> The students are able to: <ul style="list-style-type: none"> • analyze and critically discuss selected current trends in national and international Facility and Real Estate Management • identify, reflect and transfer examples and approaches from research to solve specific problems in practice • discuss research options for problems from practice 		
Course contents	<u>Practice & Research Transfer /ILV / Course no.: PFE / 4th semester / ECTS: 3</u> Examples and approaches from practice and research will be presented in lectures by experts as well as excursions to companies and research institutions. The students analyze and reflect on the presented input. The students transfer research findings in an exemplary manner for specific practical applications. Methods of research are discussed for problems from practice.		
Teaching and learning methods	<u>Practice & Research Transfer /ILV / Course no.: PFE / 4th semester / ECTS: 3</u> Blended Learning		
Evaluation Methods Criteria	<u>Practice & Research Transfer /ILV / Course no.: PFE / 4th semester / ECTS: 3</u> Portfolio		

Module number:	International Facility Management & Real Estate Development - Practice, Research & Study Trip	Scope:	
ST		3	ECTS
Degree program	University of Applied Sciences Master's course - Facility- & Real Estate Management Part-time		
Position in the curriculum	4th semester		
Level	4th semester: Consolidation		
Previous knowledge	4th semester: all contents of the modules from the 1st, 2nd and 3rd semester		
Blocked	no		
Participant group	Bachelor graduates, beginners		
Literature recommendation	<p><u>International Facility Management & Real Estate Development - Practice, Research & Study Trip /ILV / Course no.: ST</u></p> <ul style="list-style-type: none"> • Thomas, A. (publisher) (2003). Handbuch Interkulturelle Kommunikation und Kooperation. Bd. 1: Grundlagen und Praxisfelder. Göttingen: Vandenhoeck and Ruprecht • Thomas, A. (publisher), 2003. Handbuch Interkulturelle Kommunikation und Kooperation. Bd. 2: Grundlagen und Praxisfelder. Göttingen: Vandenhoeck and Ruprecht • Jones, E.: Cultures Merging. Princeton: Princeton University Press <p>Further literature depends on the respective field trip destination.</p>		
Skills acquisition	<p><u>International Facility Management & Real Estate Development - Practice, Research & Study Trip /ILV / Course no.:</u></p> <p>The students are able to:</p> <ul style="list-style-type: none"> • Understand and question international developments and their impact on Facility and Real Estate Management. • Describe and question current global trends in the industry • Understand and question different approaches to specific problems in Facility and Real Estate Management. • Understand dynamics of culture, identity and intercultural encounter • Take a position on values, stereotypes and prejudices • Describe intercultural interaction, communication and conflict skills and apply them in intercultural settings. • Understand intercultural differences and be able to react appropriately to them in the area of Facility and Real Estate Management 		
Course contents	<p><u>International Facility Management & Real Estate Development - Practice, Research & Study Trip /ILV / Course no.:</u></p> <p>Students must complete an accompanied study trip / trip abroad with a specialist program. Within the scope of the study trip / trip abroad, the following contents are taught:</p> <ul style="list-style-type: none"> • Introduction and consolidation of international Best - and Real Case projects from the Facility and Real Estate Management practice as well as studies from research • Current topics of research and development by participation in international conferences • Research and analysis of international Best Case projects for Facility and Real Estate Management • Visit of international Best Case projects for Facility and Real Estate Management • Application of intercultural skills and highlighting of particularities and challenges of intercultural projects for Facility and Real Estate Management 		
Teaching and learning methods	<p><u>International Facility Management & Real Estate Development - Practice, Research & Study Trip /ILV / Course no.: ST</u></p> <p>Lecture, discussion and excursion</p>		
Evaluation Methods Criteria	<p><u>International Facility Management & Real Estate Development - Practice, Research & Study Trip /ILV / Course no.: ST</u></p> <p>Portfolio</p>		

2.4 Internship

Internship (semester information, duration in weeks per semester)	No
---	----

2.5 Semester Abroad

Obligatory semester abroad (semester specification)	No
---	----

3 ADMISSION REQUIREMENTS

The general admission requirements are regulated by section 4 of the FHG (Fachhochschule Studies Act) as amended, according to which the subject-related admission requirement for a Fachhochschule Master's course is a completed University of Applied Sciences Bachelor degree program relevant to the subject or the completion of an equivalent degree program at a recognized domestic or foreign post-secondary educational institution.

1. For the purposes of the present application, Bachelor programs or equivalent post-secondary educational qualifications in the social and economic sciences, natural sciences and mathematics, information and technology, and engineering (based on ISCED 2013, Fields of Education and Training 03/04/05/06/07), which cover the following core subject areas (based on ISCED 2013, Fields of Education and Training) are considered relevant to the subject area in question, in summary, in a total amount of at least 30 ECTS:

- 031 Social and behavioral sciences
- 041 Economy and administration
- 042 Law
- 0521 Environmental sciences
- 053 Physical sciences
- 054 Mathematics and statistics
- 058 Interdisciplinary programs and qualifications involving natural sciences, mathematics and statistics
- 061 Information and communication technologies
- 071 Engineering professions
- 0722 Materials (glass, paper, plastic and wood)
- 0724 Mining and quarrying
- 073 Architecture and construction
- 078 Interdisciplinary programs and qualifications that support engineering, production and construction

2. The FH Kufstein Tirol provides in its course architecture for a networking of the Bachelor and Master programs in the sense of the Bologna process: Following successful completion of a Bachelor program, graduates have several options for a Master's course at and outside the FH Kufstein Tirol. Graduates of the following FH Kufstein Tirol degree programs (irrespective of the organizational form) would be admitted to the present Master's course based on the above-mentioned professional qualifications:

- Energy management or energy and sustainability management
- Facility and

Real Estate Management

- International Business and Management
- Marketing & Communication Management
- Sports, Culture and Event Management
- Business Management
- Web Business and Technology
- Industrial Engineering and Management

3. The languages of instruction and examination at the FH Kufstein Tirol are German and English across all degree programs. Students from non-German speaking countries must therefore provide appropriate evidence of their German language skills.
4. Examining the fulfilment of the admission requirements is the responsibility of the Master's course in Facility and Real Estate Management course director