## Education with a perspective for the future

Informatics, technology, economics and design


SPENGERGASSE*

## Impressum

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## Admission for students aged 14



## Admission requirements

The prerequisite for attending a higher technical college or the technical school for information technology is the successful completion of grade 8. In some cases, an entrance examination is also required.

## Entrance exams for upper secondary

 schools- AHS: no entrance examination
- New secondary school: entrance examination, if "basic general education" in one or several compulsory subjects
- Secondary school: entrance examination if assessment according to performance level „Standard" to "Satisfactory" or „, Sufficient" in one or more compulsory subjects
- Polytechnic school: no entrance exam if positive school leaving certificate


## Entrance exams for the technical college

- AHS: no entrance examination
- New secondary school: Entrance examination, if "Basic general education" is "Sufficient" in one or more compulsory subjects
■ Secondary school: Entrance
examination, if according to performance level „Standard" in one or more compulsory subjects "Satisfactory"
■ Polytechnic school: no entrance exam if positive school leaving certificate


## How to register

Through our homepage wwwspengergasse.atyou can access the school's enrolment system directly (click "Admission") and you will be guided through the entire admission process, which places special emphasis on data security. You will be informed in due time of all necessary and upcoming appointments. After the semester break, you personally present to us your semester school report (both the original and a copy). In March, the first school placements for juveniles are announced (this admission is binding, provided that all statutory entrance criteria are fulfilled when school starts in September!) By the end of June, you will receive a positive confirmation via e-mail, which must be completed by your current school following the class conference at the end of the school year. This will indicate whether one or more entrance examinations will have to be
taken in the last week of school.

## Qualifying examinations

For admission to the Media, Game, and Interior and Surface Design departments, applications must be submitted online by the end of December. In these departments, aptitude tests, which must be completed positively, are compulsory. These will only take place on the specified dates. Please register for the desired date as part of your online registration.

## Ranking criteria

If all applicants cannot be accepted, the school will determine a ranking. This is based on the grades of grade 8 - the focus is on the subjects German, English and mathematics. Additionally, for bilingual education, an entrance interview is also used as a criterion. You will be invited to this interview via e-mail after your application has been received.

## Secondary School for Informatics



## About the Programme

In addition to a sound general education, the informatics department offers a specialised and competent education in all areas of software development and network technology, as well as business administration for the marketing of software you have developed yourself, and project management.

Programming and Software Engineering

- Professional knowledge on the creation of complex software products
- Implementation of class models in the programming languages Java and
- User interface programming using JavaFX as well as WPF (in C\#)
- Work with Microsoft Visual Studio and further frameworks

Databases and Information Systems

- Development of relational data models with the help of design tools
- Installation and operation of a DBMS server systems
- Database programming in Oracle with PL/SQL

■ Use of NoSQL database systems and data mining tools

Web Programming and Mobile
Computing

- PHP scripting language for creating dynamic websites
- ASP. NET for developing more complex web applications and web services
- Creating automatic software tests with the help of test frameworks
- Developing Android apps with the associated server infrastructure

Network Systems and Cyber Security

- Achievement of industry certificates such as CISCO CCNA and Microsoft certificates
- Requirement analysis and implementation of network security measures
- Planning and expansion of network infrastructure according to customer requirements
- Maximum availability systems based on cloud solutions and virtualisation

Data Science and Artifical Intelligence

- Create complex analyses for further processing in business intelligence tools
- Apply machine learning models
- Apply data visualisation
- Semantic technologies and ontologies / knowledge graphs

Business Administration and Project Management

- Accounting / payroll accounting

■ Business law / management strategies

- Project management in software projects from planning to implementation
- If desired, the PMA certificate can be acquired


## Compulsory Electives

In order to meet the demands of the market, there are compulsory elective subjects depending on the number of registrations.

Business Applications
This subject focuses on the use of

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collaboration systems and the automation of software development processes.

Game Development
The use of programming skills in the games sector is developed in conjunction with the Game Design department using Unity 3D.

## Internet of Things

With the help of sensors, actuators, control and artificial intelligence, all things in daily life - from smart devices to robots - will become part of a smart computer network.

## Operations and Services

This subject deals with assuring the 24/7 operation of servers and network components. Attention is paid to the scalability and protection of data (cloud and privacy).

## Girls in IT

The HIF department is enjoying the increasing interest of girls taking up informatics. In order to provide girls with appropriate learning and development opportunities, mono-educational forms of learning are
used in addition to the regular lessons, building on scientific findings on the topic of girls and IT education.

English as the Language of Instruction
From Year 1 to Year 5 - provided there are enough applications - a class with English as the predominant language of instructon will be opened.

## Duration and Final Degrees

This programme takes 5 years and ends with a secondary school leaving examinatimon and a diploma entitling you to attend university or universities of applied sciences. Afterwards, you have the opportunity to acquire the title Bachelor of Science within one year through our partner programme with English universities (UDA). After 3 years of professional practice, you can apply for the title of engineer.

## Career Paths

software developer, network administrator, project manager, testing.


The school reserves the right to autonomously apply alterations to the curriculum.

## Industrial Engineering Technical Management \& Environment



| Curriculum |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1 | III | IV | V |
| Religion\|Ethics | 2 | 2 | 2 | 2 | 2 |
| German | 3 | 2 | 2 | 2 | 2 |
| English | 2 | 2 | 2 | 2 | 2 |
| Geography, History, |  |  |  |  |  |
| PhysicalEducation | 2 | 2 | 2 | 1 | 1 |
| Applied Mathematics | 3 | 3 | 3 | 2 | 2 |
| NaturalSciences | 3 | 3 | 2 | 2 | 2 |
| Corporate Management and Commercial Law | - | 2 | 3 | 3 | 4 |
| IndustrialEngineering | 2 | 2 | 2 | 3 | 3 |
| ITand |  |  |  |  |  |
| Information Systems | 2 | 2 | 3 | 2 | 3 |
| Mechanicaland |  |  |  |  |  |
| ElectricalEngineering | 3 | 2 | 2 | 2 | - |
| Process Management | 2 | 2 | 2 | 4 | 4 |
| ProductManagement | 2 | 3 | 2 | 4 | 3 |
| Facility and TestEngineering | - | - | 3 | 1 | 3 |
| Environmental Technology* | - | - | - | 2 |  |
| Laboratory | - | - | 3 | 4 | 4 |
| Workshopand |  |  |  |  |  |
| ProductionTechnology | 7 | 7 | 3 | - | - |
| Social and Personal Skills <br> *School autonomous changes |  | 1 | - | - | - |

## About the Programme

Industrial engineers at HTL Spengergasse acquire in-depth technical and economic knowledge based on a well-rounded general education. Special attention is paid to the areas of environmental technology and management. With this knowledge and your personal skills and strengths, you have numerous opportunities to successfully shape the future of companies. In technical management, you will learn to coordinate the processes in a company and to design innovative and sustainable products. In the course of this training, you will acquire the following competences:

## Engineering

- Construction, machine technology
- Electrical engineering and automation
- Production engineering
- Plant and testing technology

Business Administration and Project
Management
■ Project development

- Financial management
- Financing
- Costing
- Marketing and controlling, statistics
- ERP systems, production planning
- Quality and safety management


## Environment

- Environmental and facility management
■ Environmental analysis
- Material flow analysis, circular economy
- Sustainability of technologies


## Duration and Degree

This programme takes 5 years and ends with a secondary school-leaving examination and a diploma. After that, you are entitled to attend university and you hold a certified professional qualification. After 3 years, you can also apply for the title „engineer".

## Career Paths

Industrial Engineer, Quality and Safety Officer, Project Developer, Environmental Manager, Production Planner
Operations Manager, Testing Technician

## Industrial Engineer Business Informatics



## The Programme

Digitalisation is a future-oriented challenge in all sectors of the economy and therefore also in business informatics. In this programme you will learn how modern technical systems are planned, developed, produced, used, and tested. Business management skills are the basis for being successful with such products and systems. You will acquire skills in the following areas:

IT and Digital Technologies

- Software development
- Databases
- Web technologies
- Communication and information systems
- Networks
- Micro controllers, embedded software


## Engineering

- Mechanical and electrical engineering
- Electronics Industrial engineering business informatics
- Mechatronics, sensors and actuators
- Materials and manufacturing processes
- CAD design
- Simulation of systems

Duration and Degree
This programme takes 5 years and ends with a secondary school-leaving examination and a diploma. Afterwards you are entitled to attend university and possess a certified technical education. After 3 years, you can also apply for the title „engineer".

## Career Paths

Project manager
Software developer in the industrial environment of production, logistics or administration
Network/system administrator
System developer
Product developer
Automation technician

| Curriculum | 1 | 1 | III |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | V |
| Religion\|Ethics | 2 | 2 | 2 | 2 | 2 |
| German | 3 | 2 | 2 | 2 | 2 |
| English | 2 | 2 | 2 | 2 | 2 |
| Geography, History, |  |  |  |  |  |
| Political Science | 2 | 2 | 2 | 2 | - |
| PhysicalEducation | 2 | 2 | 2 | 1 | 1 |
| Applied Mathematics | 3 | 3 | 3 | 2 | 2 |
| NaturalSciences | 2 | 3 | 2 | 2 | - |
| Corporate Management |  |  |  |  |  |
| IndustrialEngineering | 2 | 2 | 4 | 2 | 2 |
| ITand |  |  |  |  |  |
| Information Systems | 2 | 2 | 3 | 2 | 4 |
| SoftwareDevelopmentand ProjectManagement | 2 | 2 | 4 | 4 | 6 |
| Networks and Embedded |  |  |  |  |  |
| Systems | 2 | 2 | - | 2 | 2 |
| AppliedMechatronics | 2 | - | - | 2 | 1 |
| Mechanical Technologies | 4 | 4 | - | - | - |
| Digital Technologies | - | - | 4 | 4 | 4 |
| Smart Production Lab | - | - | 6 | 5 | 5 |
| Workshopand |  |  |  |  |  |
| ProductionEngineering | 5 | 5 | - | - | - |
| Social and Personal Skills | 1 | 1 | - | - | - |

The school reserves the right to autonomously apply alterations to the curriculum.

## Medical Informatics -

 Department of Bio-Medical and Health Technology

Curriculum

|  | 1 | 1 | III | IV | V |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Religion\|Ethics | 2 | 2 | 2 | 2 | 2 |
| German | 3 | 2 | 2 | 2 | 2 |
| English | 2 | 2 | 2 | 2 | 2 |
| Geography, History, Political Science | 2 | 2 | 2 | 2 | - |
| Economicsand Law (indudingHealthEconomics) | 2 | 2 | 3 | 3 | 3 |
| Physical Education | 2 | 2 | 2 | 1 | 1 |
| Applied Mathematics | 4 | 4 | 3 | 2 | 2 |
| Natural Sciences | 3 | 3 | 2 | 2 | - |
| Socialand PersonalSkills | 1 | 1 | - | - | - |
| Biology, Medicine and Health |  |  |  |  |  |
| Biomedical | 2 | 2 | 3 | 3 | 2 |
| Digital Processing | 2 | 2 | 2 | 2 | 2 |
| Medical Equipment Technology | 2 | 2 | 2 | 3 | 4 |
| Medical | 2 | 2 | 3 | 4 | 4 |
| Medicine and |  |  |  |  |  |
| Health Informatics | 4 | 5 | 5 | 5 | 5 |
| ProjectDevelopment | - | - | 4 | 4 | 8 |
| Computer Lab | 4 | 4 | - | - | - |

The school reserves the rightto autonomously apply alterations to the curriculum.

## The Programme

As a medical IT specialist, you program software for devices that help people. You learn to develop future-oriented medical products and also how to work and communicate in a team. You will also acquire qualifications in the following areas:

## IT and Equipment Technology

You will learn the basics of software development for medical use according to the current state of the art, a lot about the e-card system and the use of artificial intelligence. As a medical informatics specialist, you will have in-depth knowledge of electronic devices for diagnosis and therapy, biomedical sensor technology and the processing of bio-signals.

Biology, Medicine, and Health
We provide basic understanding of anatomy, physiology, health and medical terminology which is important for working collaboratively in the health sector.

Health Economics \& Management
Economic and legal knowledge as well as knowledge of the health care system in Austria are necessary for the development and distribution of medical software. If you want to implement innovative ideas, the subjects in marketing will help you. Close contact with the business community and health care institutions enables practice-oriented project management.

## Duration and Degree

This programme takes 5 years and ends with a secondary school-leaving examination and a diploma. Afterwards, you possess a certified technical education and the general higher education entrance qualification. After 3 years of professional practice, you can apply for the title of "engineer".

## Career Path

Planning and support of IT systems in: medical practices/hospitals, development and configuration of medical technology devices/software in the health sector and gateways between medicine and IT.

# Technical School for Information Technology (Subsequent qualification with $A$-levels possible at this school) 



## IT Technical Instruction

The focus of the first year is a substantial workshop unit in which you learn the necessary manual skills: handling mechanical tools and electrical current, soldering, installing individual parts in a PC and installing operating systems. In addition, you will learn the basics of media technology, network technology, information systems (e.g. databases and other business applications), as well as the application of protective mechanisms in IT security.

## Business Training

In order to be able to run your own business after completing your programme, you will learn the basics of business management and business technology along with the most important economic and legal aspects.

## General Education

It is particularly important for professional success to be able to express yourself well and correctly in German and English. Therefore, they are among the most important general education subjects.

Specialisation from Year 3 Onwards In order to focus on a particular area, you can choose a field of study from the third year onwards:

- Media technology
- Network technology

You will become a specialist in the creation of websites, film and animation, or in setting up and managing networks.

## Duration and Degree

The programme lasts $31 / 2$ years and ends with a final examination. This basically corresponds to a final vocational examination for IT technicians. Afterwards, you can take the HTL A-levels in only $21 / 2$ years with five semesters of advanced training in informatics at HTL Spengergasse.

## Business Experience

Two internships will help you enter the world of employment: During the summer holidays after grade 2, you will gain first insight into the professional world. During the internship in grade 4, you will work in a company for ten weeks.

| Curriculum | 1 | 1 | III | IV |
| :---: | :---: | :---: | :---: | :---: |
| Religion\|Ethics | 2 | 2 | 2 | 1 |
| German and Communication | 3 | 3 | 2 | 2 |
| English | 2 | 2 | 2 | - |
| Applied Mathematics 2 | 2 | 2 | - |  |
| PhysicalEducation | 2 | 2 | 2 | 1 |
| Georgraphy, History, and Political Science | 2 | 1 | - | - |
| NaturalSciences | 2 | - | - | - |
| Corporate Management | - | 2 | 2 | 1 |
| Socialand PersonalSkills | 1 | 1 | - | - |
| Operational Technology and ProjectManagement | - | 3 | 4 | 1 |
| r-Systems andr-Security | 3 | 3 | 4 | 1 |
| Media Technology | 3 | 3 | 3 | - |
| SystemTechnology | 3 | 3 | 3 | - |
| Workshop System Technology | 6 | 2 | 1 | - |
| NetworkTechnology | 3 | 3 | 3 | - |
| Workshop |  |  |  |  |
| Network Technology | - | 2 | 1 | - |
| AlternativeAreaofSpecialisation <br> NetworkTechnology orMedia Technology | - | - | 6 | 2 |
| Internship | - | - | - | 20 |

The school reserves the rightto autonomously apply alterations to the curriculum.

## Media Design - Animation



| Curriculum |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1 | III | N |  |
| Religion\|EChics | 2 | 2 | 2 | 2 |  |
| German | 3 | 2 | 2 | 2 | $2$ |
| English | 2 | 2 | 2 | 2 | 2 |
| Geography, History, |  |  |  |  |  |
| Political Science | 2 | 2 | 2 | 2 |  |
| EconomicsandLaw | - | - | - | 3 |  |
| Physical Education | 2 | 2 | 2 | 1 |  |
| AppliedMathematics | 3 | 2 | 2 | 2 | $2$ |
| Natural Sciences | 3 | 3 | 2 | 2 |  |
| Social and PersonalSkkills | 1 | 1 | - | - |  |
| Media Management | - | - | - | 2 |  |
| Media Projects | - | - | 3 | 3 |  |
| Media Production | 7 | 8 | 8 | 8 |  |
| Media Theory |  |  |  |  |  |
| andArtHistory | - | 2 | 2 | 2 |  |
| Media Design | 5 | 5 | 5 | 4 |  |
| Media Technologyand |  |  |  |  |  |
| Applied Informatics | 6 | 6 | 6 | 4 |  |

Subject-Specific Mathematics - - - 1 The school reserves the rightto autonomously apply alterations to the curriculum.

More info and projects:
design.spengergasse.at instagram.com/design_spengergasse/

## The Programme

This programme focuses on animation as a narrative sequence of images and the many aspects of staging. The aim here is to reconcile aesthetics and commercial design, creativity and profitability.

The curriculum includes essential skills in the areas of 2D and 3D animation, motion design, video, visual effects, concept art, sound design and dramaturgy.

In order to achieve the highest possible level of practical relevance, industry-standard software packages such as Adobe Creative Suite and Autodesk Maya are taught. This training aims to prepare students for their professional life with the following skills:

- Contemporary digital design techniques in media production
■ Story development and dramaturgy
- Skills in concept art, animation and storytelling
- Development and production of 2D
and 3D animations for film, television and new media
- Technical implementation in professional animation or film programmes


## Requirements

As this is a programme with a creative focus, an assessment will be required prior to admission.

## Duration and Degree

This programme lasts 5 years and ends with a secondary school leaving examination („Matura"). Afterwards you have the general university entrance qualification and also a recognised professional qualification.

Career Paths
2D/3D animation,
3D visualisation,
motion design,
video production and postproduction, storyboarding,
concept art,
compositing,
visual effects, animated film.

## Mediendesign - Game Design



## The Programme

- Why do we like to play?
- How do you create a certain game experience?
- How do the characters in your game learn to walk?

These questions are asked by everyone who wants to develop and market a game themselves. Our training gives you an insight into the different processes of developing a game and the necessary knowledge to be able to implement your own ideas as a game. For successful game development, the technical and psychological aspects must also be taken into account, the basics of which are also taught. The programme is made up of the following focal points:

- Fine Arts (drawing and composition)
- Digital Arts (2D and 3D modelling in Photoshop and 3D programmes)
- Computer Science (basics of IT and programming)
- 2D and 3D Engines
- Game Theory

■ Project Management
Requirements
As this is a discipline with a creative focus, an entrance examination must be taken before admission.

## Duration and Degree

This programme takes 5 years and ends with a school-leaving examination and diploma („Matura"). Afterwards you have the university entrance qualification and in addition a certified professional education.

## Career Paths

- Game Design
- Level Design
- Game Art
- Game Programming
- Interface Design
- User Experience Design


## Curriculum

|  | I | II | III | N | V |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Religion\|Ethics | 2 | 2 | 2 | 2 | 2 |
| German | 3 | 2 | 2 | 2 | 2 |
| English | 2 | 2 | 2 | 2 | 2 |

Geography, History,
Political Science
EconomicsandLaw - - 32
$\begin{array}{llllll}\text { PhysicalEducation } & 2 & 2 & 2 & 1 & 1\end{array}$
$\begin{array}{llllll}\text { Applied Mathematics } & 3 & 2 & 2 & 2 & 2\end{array}$

| NaturalSciences | 3 | 3 | 2 | 2 | - |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Socialand PersonalSkills | 1 | 1 | - | - | - |

Media Management - - 22
MediaProjects - $\quad 333$
$\begin{array}{llllll}\text { Media Production } & 7 & 8 & 8 & 8 & 9\end{array}$
MediaTheoryandAt History $-2 \begin{array}{llll}2 & 2 & 2 & 2\end{array}$
Media Design
$6-64$

The school reserves the right to autonomously apply alterations to the curriculum.

## Interior and Surface Design



| Curriculum |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1 | III | IV | $\checkmark$ |
| Religion\|Ethics | 2 | 2 | 2 | 2 | 2 |
| German | 3 | 2 | 2 | 2 | 2 |
| English | 2 | 2 | 2 | 2 | 2 |
| Geography, History, |  |  |  |  |  |
| Political Science | 2 | 2 | 2 | 2 | - |
| EconomicsandLaw | - | - | - | 3 | 2 |
| Physical Education | 2 | 2 | 2 | 1 | 1 |
| AppliedMathematics | 3 | 2 | 2 | 2 | 2 |
| Natural Sciences | 3 | 2 | 2 | 2 | - |
| Layout | 4 | 4 | 4 | 4 | 6 |
| Exposition and Composition | 5 | 5 | 4 | 2 | 2 |
| Technologyand |  |  |  |  |  |
| Applied Informatics | 6 | 6 | 7 | 7 | 6 |
| Design and Communication (Italian/2 ${ }^{\text {did }}$ Foreign Language) |  |  |  |  | 3 |
| AtHistoryand |  |  |  |  |  |
| Philosophy ofCulture | - | - | 2 | 2 | 2 |
| ArtStudio |  |  |  |  |  |
| and Communication | 3 | 5 | 5 | 5 | 5 |
| Socials and Personal Skills | 1 | 1 | - | - | - |
| Subject-Specific |  |  |  |  |  |
| Mathematics | - | - | - | - | 1 |

The school reserves the rightto autonomously apply alterations to the curriculum.

## The Programme

Aesthetics and commercial design, creativity and economic efficiency are the focal points of the training provided at our long-standing institution. Building on many years of experience, the designers of tomorrow are educated here. The curriculum ranges from free design to computer-aided spatial conception to implementation in numerous areas of application for space and patterning. Our training aims to prepare students for their professional life with the following skills and abilities:

■ Development of spatial concepts for a wide range of applications (interior design)

- Patterning and design of textile and other surfaces (surface design)
- Creation of a portfolio
- Development of spatial perception skills
■ Representation of rooms, spatial proportions, light sources
- Concepts, plans, drafts
- Artistic manual representation and design techniques
- Digital design techniques in the artistic field


## Requirements

Since this is a programme with a creative focus, an entrance examination must be taken before admission.

## Duration and Degree

This programme lasts 5 years and ends with a secondary school leaving certificate and a diploma. With this, you acquire the general university entrance qualification, in addition to your officially recognised professional qualification.

## Career Paths

Interior designer, textile designer, model construction and 3D visualisation, interior designer, specialist in the field of visualisation and illustration, stage design and decoration.

## Admission for students aged 17 and above



Currently, the IT department for adults lists approximately 530 students from 49 countries.

## Requirements

Acceptance into the introductory course provided that the applicant reaches the age of 17 by 31 December of the current calendar year and holds a favourable school leaving certificate.

## Acceptance into the advanced course

upon

- successful completion of the introductory course
- relevant vocational qualification or
- relevant technical college diploma.


## Admission to the College according to

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- successful completion of the Austrian baccalaureate, completed vocational exam, (university entrance qualification examination)
- school-leaving qualifications equivalent to the Austrian baccalaureate in the EU
- certified equivalent school-leaving

qualifications from third countries
- proof of enrolment at an Austrian institution of higher education in case of a school-leaving qualification from a third country
- certified proof of university entrance qualification in the country of origin.

For the purpose of long-term planning at our school, non-EU nationals are required to provide proof of a valid residence permit; German language skills must be demonstrated at level B2 according to the CEFR in order to be able to follow lessons without restriction. The latter also applies at other tertiary educational institutions.

## Time frame

The courses in IT for adults are available as both day and evening classes:

- Daytime classes:

Mondays-Fridays, 8:00am-6:40pm, depending on the
number of hours per week up to twice a week until 08:20 p.m.

- Evening classes:

Mondays - Thursdays, 05:10-10:00 p.m.

Structuring of the lessons in the introductory course
The focus is on the subjects German, English and mathematics. The technical introduction to IT studies is provided by learning about the fundamentals of informatics and practical work with computers.

## Advanced studies

In addition to German, English and mathematics, the entire range of technical training is provided in accordance with the timetables on page 15 , with up to 37 hours per week during the day session and 24 hours per week during the evening session. In the last two semesters, a thesis must be written in a collaborative team.

## College

The focus is on a technical education according to the timetables on page 15 with 30-36 hours per week in the day session and 20-24 hours per week in the evening session. In the last two semesters, a thesis must be written in a collaborative team.

## Informatics for adults



## The Programme

We offer a degree programme leading to a diploma examination with comprehensive training in all sub-areas of informatics, which will provide you with the greatest possible job security later on. In the course of yourstudies, you will acquire competencies in the following areas:

## Software-Engineering

- State-of-the-art software development
- Test strategies and development of large software projects
■ Development for mobile devices such as smartphones


## Databases and Information Systems

- Database design and modelling

■ Optimising performance

- Creating complex queries in relational databases
- Operating large information systems
- State-of-the-art security technologies and data protection
- Data mining and big data analysis


## Networks and Distributed Systems

■ Eletronics, virtualisation, operatring systems

- Network technology
- Securing and monitoring the network
infrastructure
- Configuration of directory services
- Application of web technologies in software development

Business Administration and
Management
■ Business organization and accounting

- Commercial law
- Founding \& Management
- Personnel management\&Marketing


## System Planning and Project

## Development

■ Project management

- Development models in software design
- Prototype development

■ Error analysis and correction
■ Risk management
Web Programming and Mobile
Computing

- PHP scripting language
- ASP. NET for more complex web applications and web services
- Creating automatic software tests via various frameworks

■ Developing Android apps with the associated server infrastructure

Network Systems and Cyber Security

- Achievement of industry certificates such as CISCO CCNA and Microsoft certificates
- Requirement analysis and implementation of network security measures
- Planning and expansion of network infrastructure according to customer requirements
- Maximum availability systems based on cloud solutions and virtualisation


## Data Science and Artifical Intelligence

■ Create complex analyses for further processing in business intelligence tools
■ Apply machine learning models

- Apply data visualisation
- Semantic technologies and ontologies/ knowledge graphs


## Partner Universities

You can obtain a BSc degree from our partner universities in Great Britain after completing only 2 semesters of study in Preston or Derby (UK). A Master's degree can also be completed there. You can find more information on our homepage atwww.spengergasse.at, menu item „Education from 17 ".


## Timetable

## Daytime courses (30-37 hours per week)



## College of Animation



| Curriculum |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | II | III | IV | V | VI |
| MediaTechnology | 6 | 6 | 4 | 4 | 3 | 3 |
| Media Theory* | - | - | 2 | 2 | 2 | 2 |
| MediaDesign | 7 | 7 | 5 | 5 | 4 | 4 |
| Media Production | 4 | 4 | 4 | 4 | 5 | 5 |
| MediaProjects | - | - | - | - | 4 | 4 |
| Media Industry | - | - | - | - | 2 | 2 |
| Communication | - | - | - | - | 2 | 2 |
| BusinessandLaw | - | - | 2 | 2 | 2 | 2 |
| Religion\|Ethics | 1 | 1 | 1 | 1 | - | - |

The school reserves the rightto autonomously apply alterations to the curriculum.

* For layout reasons, the names of the subjects are abbreviated.

Further information: animation@spengergasse.at design.spengergasse.at instagram.com/design_spengergasse

With a focus on 2D and 3D animation, the programme is dedicated to the design of a narrative sequence of images. Visualising actions through movement forms the core of the studies.

In addition to basic skills in the field of audio-visual media design, the programme includes the teaching of essential skills in the areas of illustration, 2D and 3D animation, motion design, post-production, sound design and dramaturgy for numerous areas of application in the fields of film, television and new media.

The goal of the programme is to provide students with the following skills and abilities:

[^0]■ Illustration and art direction
■ Knowledge of contemporary production techniques

## Requirements

The general university entrance qualification (Matura) is a prerequisite for admission to the college. As this is an education with a with a creative focus, an entrance exam must be taken prior to admission.

## Duration and Degree

The programme lasts 6 semesters and concludes with a diploma exam. Classes at the evening college take place between 5:10 pm and 10:00 pm.

## Career paths

2D/3D animator, motion designer, illustrator, storyboarder,
concept artist, animated film and 3D artist

## College of Game Design



## The Programme

The games industry is the fastest growing entertainment industry in the world!

However, for successful game development, artistic and technical as well as psychological and economic aspects must be considered. Our education at the Evening College for Game Design gives insight into the different development processes of a game and the necessary knowledge to be able to implement your own game ideas.

The aim of the programme is to provide students with the following skills and abilities:

- Understanding of game design theory and game critique
- Design and development of game and level design
- Creation of concept art and implementation in 2D and 3D
■ Knowledge of prototyping and programming in game engines
- Planning and designing in the field of audio design for games
- Understanding of the games market and creation of a business plan
- Planning and management of projects


## Requirements

The general university entrance qualification (Matura) is a prerequisite for admission
to the college. As this is an education with a with a creative focus, an entrance exam must be
must be taken prior to admission.
Duration and Degree
The programme lasts 6 semesters and concludes with a diploma exam. Classes at the evening college take place between 5:10 pm and 10:00 pm.

## Career paths

Game Design, Level Design, Game Art, Game Programming, Interface Design, User Experience Design

## Curriculum

|  | I | II | III | N | V | VI |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| MediaTechnology | 6 | 6 | 4 | 4 | 3 | 3 |
| Media Theory* | - | - | 2 | 2 | 2 | 2 |
| MediaDesign | 7 | 7 | 5 | 5 | 4 | 4 |
| Media Production | 4 | 4 | 4 | 4 | 5 | 5 |
| MediaProjects | - | - | - | - | 4 | 4 |
| Media Industry | - | - | 2 | 2 | - | - |
| Communication | - | - | - | - | 2 | 2 |
| Business and Law | 2 | 2 | 2 | 2 | - | - |
| Religion\|Ethics | 1 | 1 | 1 | 1 | - | - |

The school reserves the rightto autonomously apply alterations to the curriculum.

* For layout reasons, the names of the subjects are abbreviated.


## Kolleg für Interior- und Surfacedesign



| Curriculum |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | I | II | III | IV |
| Layoutand Design | 8 | 8 | 6 | 6 |
| Digital Tools | 8 | 8 | 6 | 6 |
| Technology | 2 | 2 | 2 | 2 |
| Presentation Techniques | 6 | 6 | 4 | 4 |
| Studioand Production | 4 | 4 | 4 | 4 |
| Design Theory | 2 | 2 | 2 | 2 |
| Arthistoryand Cultural Philosophy | 2 | 2 | 2 | 2 |
| Creative Business | - | - | 2 | 2 |
| Communication | - | - | 2 | 2 |
| Business and Law | 2 | 2 | 2 | 2 |
| Religion\|ECthics | 1 | 1 | 1 | 1 |

The school reserves the rightto autonomously apply alterations to the curriculum.

## The Programme

The day programme for Interior and Surface Design focuses on textile design on and other surfaces (surface design) and the development and visualisation of room designs (interior design). These courses build on our long-standing tradition in textile design.

The range of courses extends from free design to computer-assisted room design and implementation in numerous areas of application for room and patterning. The aim of the courses is for students to develop the following abilities and skills:

- Development of room designs for different applications (interior design)
- Patterning and design of textiles and other surfaces (surface design)
- Representation of rooms, room proportions, light sources
- Concepts, plans, drafts
- Creating portfolios
- Artistic manual representation and design techniques
- Digital design techniques in artistic contexts


## Requirements

The general university entrance qualification (Matura) is a prerequisite for admission
to the college. As this is an education with a with a creative focus, an entrance exam must be
must be taken prior to admission.

## Duration and Degree

The programme lasts 4 semesters and concludes with a diploma exam.

## Career Paths

Interior designer, textile designer, Model making and 3D visualisation, Interior designer, specialist in visualisation and illustration visualisation and illustration, stage design and set design

## Contact Information



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[^0]:    - Planning and production of audiovisual media projects
    - 2D and 3D animation for film, television and new media
    ■ Story development and dramaturgy

