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BACHELOR | FULL-TIME | 6 SEMESTERS | ENGLISH

# Creative Computing

Interface Design | Experience Design and Development for Web |  
Mobile | Games and Virtual Reality

# Creative Computing

You want to shape the digital future? The human-computer interface is at the centre of the digital transformation. This bachelor degree programme provides you with the necessary skills for planning, designing, and programming these interfaces and allows you to combine technical programming knowledge with creative expertise in User Interface Design, Game Design, Web Technologies, Mobile Programming, and Augmented & Virtual Reality.

## Your Studies

The curriculum provides you with a broad qualification profile in computer science and the basics of media design as well as the social science methods necessary for user-centred design.

### Focus Areas

- **Programming:** You will learn to code web, mobile, and 3D applications. We start with fundamental programming skills on the basis of JavaScript. Building on this, you learn a high-level language for native programming on smartphones. Subsequently, the programming language C# is taught and used in the development of Augmented and Virtual Reality applications on the platform Unity.
- **Human-computer interaction:** The curriculum includes essential components of the human-centred design cycle such as user research, prototyping, and evaluation. Furthermore, you learn how to develop smart devices and to equip existing objects with computing features.
- **User interface design:** You acquire the fundamental principles of graphic design for interactive screen media and deepen your knowledge of web, mobile, and Augmented & Virtual Reality in a media-specific manner.

## Your Career

Once you have completed this sound scientific training, numerous professional options in various sectors will be open to you. Graduates are well-equipped for jobs such as:

- Mobile designer
- Mobile developer
- Web designer
- Web developer
- Multimedia designer
- Digital artist
- 3D artist
- User interface designer
- User experience designer
- Front-end developer
- Full-stack developer
- Game designer
- Game developer
- XR designer
- XR developer
- AI developer



### Academic Degree

Bachelor of Science in  
Engineering (BSc)



### Duration of Studies

6 semesters



### Tuition Fees<sup>1</sup>

363.36 € per semester  
+ Students' Union fee



### Application & Admission Procedure:

[fhstp.ac.at/guide](https://fhstp.ac.at/guide)



### Study Places/Year

75



### Organisational Form

full-time  
English

<sup>1</sup>for students from third countries: 1,500 €, performance-based tuition fee waivers are available

# What Makes Your Studies Unique

## Creative Code Labs

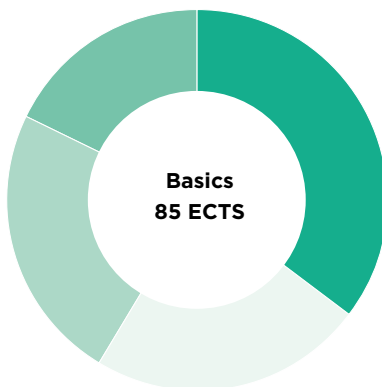
The study content is taught using the method of project-based learning: Each of the first four semesters ends with an intensive two-week project phase. These project phases – called Creative Code Labs – are assigned to specific topics that differ from semester to semester. The topics of the Creative Code Labs in the first four semesters are: Games and Playful Front-Ends, Connected World, Mobile Applications, and Extending Realities. In the sixth semester, students can deepen one of these topics in group projects that are carried out over a full semester in the framework of the mediaLab.

## Internationalisation at Home

Another option for the sixth semester is to join the international and interdisciplinary project semester. The students form interdisciplinary teams who strive to solve a specific problem during the semester. Our objective is to offer all students the opportunity to gain experience with international teams, independent of stays abroad. However, we also strongly encourage students to opt for a semester abroad.

In addition, a professional internship in the fifth semester gives our students the opportunity to put the acquired content into practice. Supervisors provide individual mentoring and assistance during the internship.

## Weighting of the Course Content

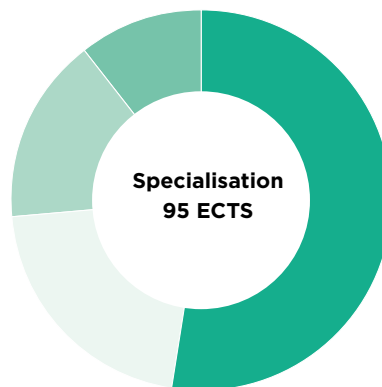


**Programming**  
30 ECTS

**User Interface Design**  
20 ECTS

**Basic knowledge**  
20 ECTS

**Human-Computer Interaction** | 15 ECTS



**Projects**  
50 ECTS

**Bachelor thesis**  
15 ECTS

**Internship**  
20 ECTS

**Elective Modules**  
10 ECTS

# Curriculum

## 1<sup>st</sup> year of studies

1 <sup>st</sup> semester	ECTS
<b>Front-End Development</b>	
Introduction to Web Technologies	3
Client-Side Coding	4
2D Browser Game Coding	3
<b>User Interface Design</b>	
Graphic Design	3
2D Game Graphics	2
<b>Foundations of Creative Computing</b>	
Game Design and Digital Storytelling	4
Selected Legal Topics for Developers and Designers	1,5
Agile Software Lifecycle Management	1,5
Mathematics and Physics for Computing	3
Creative Code Lab 1: Games and Playful Front-Ends	5

2 <sup>nd</sup> semester	ECTS
<b>Web Programming</b>	
Server-Side Coding	5
<b>Design-Oriented HCI</b>	
Introduction to Human-Centred Design	2
User Research	3
<b>Web Design</b>	
Visual Interface Design	2
Responsive Design and Prototyping	3
<b>Foundations of Creative Computing 2</b>	
Networks, Cloud & Communication Security	3
Applied Artificial Intelligence (AI)	3
Framework-Oriented Coding	2
Creative Code Lab 2: Connected World	5

## 2<sup>nd</sup> year of studies

3 <sup>rd</sup> semester	ECTS
<b>Mobile Programming</b>	
Mobile Coding	5
<b>Empirical Methods in HCI</b>	
Usability and Experience Evaluation	5
<b>Mobile User Interface Design</b>	
User Interface Design for Mobile Devices	2
Interaction, Interfaces, and Prototyping	3
<b>Physical Computing and Internet of Things</b>	
Physical Computing and Connectivity	3
Tangible User Interfaces	2
<b>Elective Module</b>	
Elective Module	5
Creative Code Lab 3: Mobile Applications	5

4 <sup>th</sup> semester	ECTS
<b>Cross-Reality Coding</b>	
C# Development	4
Engine-Based Cross Reality Development	5
Software Product Management	1
<b>3D Design</b>	
3D Modelling and Animation	3
Game Audio	2
<b>Scientific Writing</b>	
Scientific Writing	5
<b>Elective Module</b>	
Elective Module	5
Creative Code Lab 4: Extending Realities	5

## 3<sup>rd</sup> year of studies

5 <sup>th</sup> semester	ECTS
Internship	20
Bachelor Thesis	10

6 <sup>th</sup> semester	ECTS
<b>Project Semester</b>	
mediaLab	18
Project Coaching	4
Project-Specific Coaching	6
Bachelor Exam	2

Details and information on  
**Creative Computing**





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**Start Your Career in Media:** Campus media, labs, and studios in addition to an equipment rental service account for the best teaching and learning opportunities for more than 900 students in our media degree programmes. Establish valuable contacts over the course of your studies and connect with over 3,500 alumni in the industry. The St. Pölten UAS trains you to become a media expert – in the areas of creation, production, distribution, and management.

#### **Information & Contact**

Campus und Study Center (CSC) | T: +43 2742 313 228-333 | E: [csc@fhstp.ac.at](mailto:csc@fhstp.ac.at) | I: [fhstp.ac.at](http://fhstp.ac.at)

#### **Diversity at the Campus St. Pölten**

Everybody is welcome: Inclusion, gender equality, and diversity are important to us. Our campus is accessible barrier-free. Please contact us in good time so that we can take your needs into account.

09/2023