

goal-ca1(s)

learning target(s)

More specifically, the learning goals may be summarized as:

- skill(s) – (digital) content creation
- knowledge – information management & presentation
- theory – relation technology, science & art(s)
- experience(s) – presentation of ideas, concepts & plans
- attitude – exploration, communication, discovery, presentation

In particular, experience and attitude are relevant since Creative Technology is relatively unique in targeting **creativity** at an academic level in a bachelor curriculum.

goal-ca3(s)

learning target(s)

In terms of skills, competences, etcetera, the learning goals of this course can be indicated as follows:

- skill(s) – multi-platform technical development
- knowledge – interaction & game play
- theory – smart technology, media & communication
- experience(s) – large scale application with (societal) impact
- attitude – acquisition, problem-finding, self-organization, creative solutions

Perhaps not present in the list in a sufficiently explicit way is that the application must be resistant to **public exposure**, and that the student must develop a sense of **aesthetic responsibility** as well as a sufficient degree of **artistic autonomy**.

goal-ca4(s)

learning target(s)

In terms of skills, competences, etcetera, the learning goals of this course can be indicated as follows:

- skill(s) – multi-display visual design
- knowledge – narrative(s) & interaction
- theory – communication & aesthetics
- experience(s) – medium scale cross-media application
- attitude – aesthetic sensibility

In accordance with the format of *creative application(s)* **self-management** is essential for the successful completion of the course.

goal-ca5(s)

learning target(s)

In terms of skills, competences, etcetera, the learning goals of this course can be indicated as follows:

- skill(s) – configuration of sensor systems
- knowledge – sensor data management
- theory – coordination & logistics
- experience(s) – medium scale (playful) logistics application
- attitude – inventive, playful

Again, in accordance with the format of *creative application(s)* **self-management** is essential for the successful completion of the course.

goal-ce(s)

learning target(s)

Basic skills involve the use of authoring languages and tools. Detailed knowledge of the **platform of choice** is required to produce **effective game(s)**.

- skill(s) – design, coding
- knowledge – art
- theory – communication & art
- experience(s) – construction of moderately complex installation
- attitude - creativity, aesthetics, explorative

However, not only technical issues are important, but also the use of fantasy and **creativity** and **aesthetics** needed to **explore** (novel) forms of **experience**.

goal-de7(s)

learning target(s)

- skill(s) – (3D) modeling, graphic design
- knowledge – tools & applications
- theory – design project workflow(s), DCC formats
- experience(s) – graphic or game design project
- attitude – aesthetics, craftsmanship

goal-ethic(s)

learning target(s)

Basic skills involve the use of authoring languages and tools. Detailed knowledge of the **platform of choice** is required to produce **effective game(s)**.

- skill(s) – design, coding
- knowledge – game engine(s), game (play) mechanics
- theory – game development workflow(s)
- experience(s) – construction of moderately complex game
- attitude - creativity, aesthetics, explorative

However, not only technical issues are important, but also the use of fantasy and **creativity** and **aesthetics** needed to **explore** (novel) forms of **game play**.

goal-iv(s)

learning target(s) With regard to the programming skills, the actual **topics** treated in *interactive visualization* will to a large extent on what has been covered in the earlier **programming course(s)** However, taking a **technology-agnostic view** our learning goals can be summarized as:

- skill(s) – scripting, XML-based configuration
- knowledge – interactive animation & visualization
- theory – dynamic systems, information presentation
- experience(s) – medium scale interactive visual application(s)
- attitude – explorative, problem-finding, aesthetics

In particular, students must gain an **intuition** on how to create **visualizations using computational means**, and how to approach visualization issues by iteratively, as outline in Ben Fry's book on **visualizing data**, going through the following steps: *acquire, parse, filter, mine, represent, refine* and *interact*. No need to emphasize that an **exploratory attitude** is essential, as well as a (to be developed) sense of **(computational) aesthetics**

goal-nm1(s)

learning target(s) The NM1 course is meant to bring competence(s) and skill(s) at various levels. In addition, references will be made to literature for further theoretical study. Small projects will further give the experience needed for using web technology in an effective manner.

- skill(s) – scripting, styling, configuration
- knowledge – html, javascript, css, xml, php
- theory – basic(s) of web 2.0
- experience(s) – small scale multi-language web application development
- attitude – understanding, craftsmanship, discovery

Apart from practical skills, the course aims at an intuitive understanding of the complexity of the web as a platform for communication and services. To profit from the course, must have a sufficient degree of curiosity and lust for discovery.

goal-nm2(s)

learning target(s) With regard to the programming skills, the actual **topics** treated in *interactive visualization* will to a large extent on what has been covered in the earlier **programming course(s)** However, taking a **technology-agnostic view** our learning goals can be summarized as:

- skill(s) – scripting, XML-based configuration
- knowledge – interactive animation & visualization
- theory – dynamic systems, information presentation
- experience(s) – medium scale interactive visual application(s)
- attitude – explorative, problem-finding, aesthetics

In particular, students must gain an **intuition** on how to create **visualizations using computational means**, and how to approach visualization issues by iteratively, as outline in Ben Fry's book on **visualizing data**, going through the following steps: *acquire, parse, filter, mine, represent, refine* and *interact*. No need to emphasize that an **exploratory attitude** is essential, as well as a (to be developed) sense of **(computational) aesthetics**

goal-nm3(s)

learning target(s)

Basic skills involve the use of technology, involving both programming issues, as well as service APIs.

- skill(s) – scripting, configuration, use of service APIs
- knowledge – APIs, protocols, REST & SOAP
- theory – web 2.0, social networks
- experience(s) – construction of moderately complex mashup
- attitude – craftsmanship, creativity

However, not only technical issues are important, but also issues of **design** and **creativity** in developing novel **(combinations) of services**, together with an **appealing interface**.

goal-nm4(s)

learning target(s)

Basic skills involve the use of authoring languages and tools. Detailed knowledge of the **platform of choice** is required to produce **effective VRs**.

- skill(s) – authoring, design
- knowledge – VR technologies, spatial organisation
- theory – user interface issues
- experience(s) – construction of moderately complex VR
- attitude – experimentation, aesthetics

However, not only technical issues are important, but also issues of **design, creativity** and **aesthetics**.

goal-nm5(s)

learning target(s)

Basic skills involve the use of authoring languages and tools. Detailed knowledge of the **platform of choice** is required to produce **effective game(s)**.

- skill(s) – design, coding
- knowledge – game engine(s), game (play) mechanics
- theory – game development workflow(s)
- experience(s) – construction of moderately complex game
- attitude - creativity, aesthetics, explorative

However, not only technical issues are important, but also the use of fantasy and **creativity** and **aesthetics** needed to **explore** (novel) forms of **game play**.

goal-sg(s)

learning target(s)

Basic skills involve the use of authoring languages and tools. Detailed knowledge of the **platform of choice** is required to produce **effective game(s)**.

- skill(s) – design, coding
- knowledge – game engine(s), game (play) mechanics
- theory – game development workflow(s)
- experience(s) – construction of moderately complex game
- attitude - creativity, aesthetics, explorative

However, not only technical issues are important, but also the use of fantasy and **creativity** and **aesthetics** needed to **explore** (novel) forms of **game play**.