OOP4Fun with Greenfoot

Planned ECTS: 2

Number of learners: 30

Mode of delivery: Face to Face

Status: NOT STARTED

Course public access: Private

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Topic / Unit name	Workload	Learning type	Mode of delivery			Groups	Collaboration	Feedback	Mandatory activity	Assessment		
										Points	Type	Providers
Teaching scenarios												
TS1: Introduction to Greenfoot: Exploring Game Development with Creativity												
Introduction Teacher introduces today's session, reflects on the previous session and sets challenging goals.	5 min	Acquisition	Onsite	Synchronous	Teacher present	No	No	No	No	No		

Rush-hour challenge After the teacher introduces today's session, reflects on the previous session and sets challenging goals, the rush-hour challenge begins. Students are given the gamified assignment to find instructions, download and install greenfoot (yet unknown development tool for them) on their computers. The first three students are given tokens of appreciation (badges, points, scores, sweets etc.).	10 min	Investigation	Onsite	Synchronous	Teacher present	No	No	Teacher	No	No

Playing games with teacher The second surprise for them is that in the next 30 minutes they will be playing games with the teacher. This is a teacher guided session on opening, compiling and running one-two simple example projects (on the introductory to medium level of complexity). This will show students the basic elements of the Greenfoot development environment as well as of basic procedures of handling the project files and assets.	30 min	Practice	Onsite	Synchronous	Teacher present	No	No	No	No	No

Team Formation and Project Assignment The students will be grouped in the teams (3-4 students each) and will be given a simple assignment. Teams should change "something" in the given example project to make the game surprising or fun.	5 min	Acquisition	Onsite	Synchronous	Teacher present	Yes	Yes	No	No	No

Team Collaboration and Coding	30 min	Practice	Onsite	Synchronous	Teacher present	Yes	Yes	No	No	No
Team collaboration and coding will have teams work collaboratively on trying to change something in the given examples. If they break the code beyond the line of being able to fix it on their own they can ask for help from the teacher or can download the "start version" again. This will be a good example why we should use version control systems when coding.										

Peer Review and Feedback One or two teams will present their work for peer review and feedback and the group will discuss the results along with the teacher.	10 min	Assessment	Onsite	Synchronous	Teacher present	Yes	Yes	No	No	0	Formative	Peer

Homework At home for homework, each student should search for examples of Greenfoot games and should introduce his class to his favorite example by uploading a link, description of what makes it his favorite example and two-three screenshots of the development environment and running game.	30 min	Production	Hybrid	Asynchronous	Teacher present	No	No	No	No	No

Competition grading	30 min	Assessment	Onsite	Synchronous	Teacher present	No	No	No	No	0	Summative	Peer
As part of the gamification and motivation via competition, each student should vote for three best games (it is not allowed to vote for his own game). The winners are announced and awarded with tokens of appreciation (badges, points, scores, sweets etc.).												
Total unit workload	2.5h											

TS2: Exploring Classes and Objects through Game Development with Greenfoot

Introduction Teacher introduces today's session, reflects on the previous session and sets challenging goals	5 min	Acquisition	Onsite	Synchronous	Teacher present	No	No	No	No	No
Flipped Classroom Session Students conduct independent research on what objects are to be presented on the stage of the game they are developing.	10 min	Investigation	Onsite	Synchronous	Teacher present	No	No	No	No	No
Discussion Teacher guided discussion on recognized objects and their classification in classes.	10 min	Discussion	Onsite	Synchronous	Teacher present	No	No	No	No	No

Greenfoot tutorial Teacher guided tutorial on creating selected objects in the game, emphasizing classes and objects.	25 min	Practice	Onsite	Synchronous	Teacher present	No	No	No	No	No
Team Formation and Project Assignment Formation of teams (3-4 students each) and assignment of specific project that will build on the outputs of the previous activity.	5 min	Acquisition	Online	Synchronous	Teacher present	Yes	Yes	No	No	No

Activity	Time	Type	Location	Mode	Teacher							Assessment	Evaluator
Team Collaboration and Coding Teams work collaboratively on designing and implementing their assigned projects.	20 min	Practice	Onsite	Synchronous	Teacher present	Yes	Yes	No	No	No			
Peer Review and Feedback One or two teams will present their work and the group will discuss the results along with the teacher.	15 min	Assessment	Onsite	Synchronous	Teacher present	No	No	No	No	0		Formative	Teacher, Peer
Homework Each team uploads their project, and peers provide constructive feedback via homework activity. Each student will evaluate one-two solutions from other teams.	30 min	Production	Online	Asynchronous	Teacher not present	No	No	No	No	0		Summative	Peer

Project work Each team will utilize the knowledge by defining game objects in the project they are working on continuously through the whole year.	60 min	Production	Onsite	Asynchronous	Teacher not present	Yes	Yes	Teacher	No	0	Summative	Teacher
Total unit workload	3h											
Total course workload	**5.5h**											