SCRUM elements

This document was given by Distributed Software Development course professors, taught in collaboration at FER, POLIMI and MDU universities.

M = mandatory, O = optional

What we implemented in our process

SCRUM roles

Role	M/O	Description
Product Owner	M	Determined before the team presentation, does not change during the project. Relevant concern is return-on-investment for devised software solution.
Scrum Master	M	Determined before the team presentation, students can change in this role between sprints. Relevant concern is team productivity.
The Team	M	All members that take active part of development and management of software product under study.

Product

Element	M/O	Description
Product backlog		List containing backlog items
Initial product backlog	M	Product Backlog document 1st version resulting from the product vision and initial requirements
Product backlog items	M	Product backlog needs to be filled by user- stories and other items that need doing in order to fulfill the software development problem.
Backlog item priorities	M	Backlog must be prioritized (sorted)
Backlog re-prioritization	M	Backlog items can be reprioritized, new Product Backlog document version created (older backlog versions must always be available)
Backlog item business value estimation	O	Each item can have its business value estimated (regarding the product being built), can be changed in subsequent backlog revisions
Effort estimation	O	Development effort can be estimated for each item on the product backlog, can be changed in subsequent backlog revisions

Risk estimation	O	Risk can be estimated for each backlog item, can be changed in subsequent backlog revisions
Product backlog refinement	O	Conducted during sprints; splitting large or consolidating smaller product backlog items, introducing new and removing items, new estimations of item effort, value etc. Must not involve backlog items selected for current sprint.
Product/Release burndown chart	O	Graphical representation of product/release backlog estimated effort

Sprints

Element	M/O	Description
Sprint duration	M	Sprint duration is prescribed, most of the sprints have equal duration (2 weeks), a sprint cannot be extended beyond the defined end date.
Sprint planning meeting	M	Discuss product backlog, select items from product backlog, create sprint backlog by refining selected product backlog items into sprint backlog tasks, estimating work effort
Sprint planning meeting - advanced	O	Estimate team velocity, estimate team availability, technical design, ordering (dependencies) of sprint backlog tasks etc.
Sprint backlog	M	A list containing sprint backlog items
Sprint backlog items	M	Sprint backlog items are tasks. There must be an explicit link between a product backlog item and a sprint backlog item.
Sprint backlog updates	M	New tasks can be added to or removed from the backlog only because of more insight into required work on previously selected product backlog items, adding new product backlog items (and related sprint backlog tasks) during active sprint is not allowed.
Task allocation	M	Tasks are chosen by team members, allocation is recorded in the sprint backlog.
Task reallocation	O	In case of problems, task can be completely reallocated to other team member, or pair work can be used, reallocation is recorded in the backlog.
Effort remaining updates	M	Remaining effort estimate for sprint backlog item must be updated every (working) day by the team member the item has been allocated to
Sprint burndown chart	M	Graphical representation of sprint backlog estimated effort.
Aborting sprint	O	Abort sprint due to large changes in product

		backlog or inability to continue with the set of tasks in the sprint backlog. Consultations with project supervisors are required!
Daily Scrum meeting	O	Inspect&adapt on the daily/sprint level. Daily status report meeting, no discussion.
Follow-up meeting	O	If needed, after daily scrum meeting, discussion on problems, perceived obstacles
Sprint review	M	Inspect&adapt activity focused on **product**, may involve customer and other stakeholders,may include demo (MVP!).
Sprint retrospective	M	Inspect&adapt activity focused on **process**