

Welcome

GiPHouse Spring 2021 Employees

GiPHouse Student Project “Company” (founded in 1992)

Real projects, real-life customers.

Courses:

- Bachelor
 - [Software Engineering](#)
(93 students as of 26-01)
- Master
 - [System Development Management](#)
(45 students as of 26-01)
 - [Software Development Entrepreneurship](#) (fall)

Software Engineering (IBI001)

Cynthia Kop, Daniel Strüber, Marko van Eekelen



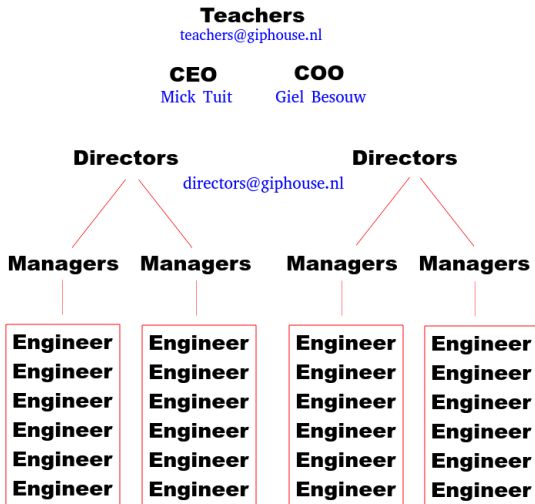
System Development Management (IMC021)

Cynthia Kop, Daniel Strüber, Marko van Eekelen

Edwin Hendriks, Paul Frederiks



GiPHouse Organisation



Goals of SE and SDM

Software Engineering

- develop a **realistic software product** in a SCRUM team;
- apply **agile practices** such as the SCRUM standup and pair programming for effective collaboration;
- **work as a team** by planning around skill differences, helping each other and addressing individual problems;
- create **high-quality code** using design principles and software patterns;
- apply **systematic testing techniques** to deliver demonstrably correct code.

Goals of SE and SDM

System Development Management

- manage your **team** by identifying and removing obstacles and keeping meetings on track;
- manage your **client** by setting good expectations, adapting to changing requirements as appropriate and communicating clearly;
- manage your **superiors** by providing transparency in your team's progress and communicating your planning and potential problems in a timely manner;
- build a **smooth working atmosphere** for your team.

Overall: at the end of the course you will have the skills of an **IT project leader**. However, individual specialisations may vary.

Goals of SE and SDM

The goals of both courses are achieved via lectures and a **real software project for a real customer** in the context of the **student-run GiPHouse “Company”** with students in various roles:

- team members (SE);
- team managers (SDM);
- GiPHouse directors (SDM).

Course structure

Theory: Software Engineering

Practical Lab: GiPHouse Team Members

Theory: System Development Management

Practical Lab: GiPHouse Management

- Managers work **just as hard** as team members
 - Besides their main role as group managers, SDM students also have a mini-project and a mini-exam.
- Theory **prepares for the practical** work and also provides context, general theory, methods, techniques, and guidance for future projects.
 - SE lectures only during the first quarter.
 - SDM lectures concentrated in the first quarter, but some later.
 - You **apply the theory in your project** so that you can motivate its applicability and its advantages and disadvantages.

Way of working

- Iterative, agile development in three-week cycles.
- Working code / infrastructure after each sprint.
- Working closely with clients.
 - Talk to the client as much as possible.
 - Minimum: once every sprint.

Timeline

- February
 - Become a **team**.
 - meet regularly;
 - know each other's skills;
 - divide work;
 - report, give feedback.
 - Understand / update / adapt **project definition**.
 - prioritised requirements list, basic risk assessment
 - key design decisions such as architecture
 - perhaps: make wireframes, drawings.
 - Work ahead / **explore** implementation / start **coding**.
 - Github
 - check and understand relevant libraries
 - create basic utilities
 - get familiar with programming language / framework
 - **24–25 February: initial presentations**

Timeline

- March / April
 - Continue **coding**.
 - deliver working code at the end of each sprint (and if possible in between!)
 - deliver high-quality code
 - Set up **testing**.
 - automated unit testing
 - continuous integration
 - checklists for manual testing if relevant
 - **Adapt** plans.
 - changing requirements;
 - emerging problems.
 - **16 April: submit intermediate presentations**

Timeline

- May
 - Keep coding, while testing (unit tests, user acceptance tests).
 - Add more features, refactor where appropriate.
 - Finalise and deliver the result.
 - **4 June: submit final presentation**
 - **7–18 June: final project discussions**
(possibly some groups in 21–25 June)

Requirements for the presentations will be posted on Brightspace.

Plans and schedules may change; updates will be posted on Brightspace.

Intermediate deliverables

For Software Engineering:

- A Github **repository** of code.
 - source code
 - tests
 - documentation (requirements, code decisions, testing checklists, accompanying documents)
- An assignment to document code quality
- Peer review

For System Development Management:

- Project plan / Business management plan
- Documentation for sprint planning, review and retrospective / Documentation on teams' progress
- Peer review and cross-group review / Team evaluations

Grading: software engineering

Recall: learning objectives

- develop a **realistic software product** in a SCRUM team;
- apply **agile practices** such as the SCRUM standup and pair programming for effective collaboration;
- **work as a team** by planning around skill differences, helping each other and addressing individual problems;
- create **high-quality code** using design principles and software patterns;
- apply **systematic testing techniques** to deliver demonstrably correct code.

Grading: software engineering

- 2.0** quality of and individual contribution to the product (including presentation quality)
- 2.0** implementation of the Scrum process
- 3.0** teamwork: participation in meetings, working together, helping/leadership and contribution to the team synergy
- 1.5** code quality assignment
- 1.5** quality of automatic and (systematic!) manual testing

Grading: system development management

Recall: learning objectives

- manage your **team** by identifying and removing obstacles and keeping meetings on track;
- manage your **client** by setting good expectations, adapting to changing requirements as appropriate and communicating clearly;
- manage your **superiors** by providing transparency in your team's progress and communicating your planning and potential problems in a timely manner;
- build a **smooth working atmosphere** for your team.

Overall: at the end of the course you will have the skills of an **IT project leader**. However, individual specialisations may vary.

Grading: system development management – managers

- 2.0 implementation Scrum process
- 2.0 client interaction and management
- 2.0 reports to directors
- 2.0 individual leadership
- 0.5 presentation quality
- 1.5 assignment Edwin

Grading: system development management – directors

- 2.5** quality of Scrum and process guidance
- 2.5** visibility and pro-activeness in addressing problems
- 2.0** reports to the board
- 0.5** presentation quality
- 1.5** assignment Edwin

Grading: where does it come from?

Teachers determine grades, based on:

- presentations
- customer satisfaction
- managers', directors' and teachers' impression
- code and documentation
- inter-group evaluation
- peer review
- final project discussion
- teacher assignments
- project reports by the managers and directors

Final Project discussions

Clarify open questions regarding the process.

- The **whole team** (SE and SDM members) will discuss the project.
- Questions both to the **group** and to **individuals**.
- Some individuals may also be invited for a **personal discussion**.

Mandatory attendance?

- **Key idea:** skipping important theory is unfair to your teammates.
- We expect everyone to view all presentations!
- For SE: no lectures in the fourth quarter!

Schedule

[illegible]

Schedule

[illegible]

Wednesday morning: shared lectures today, and next week.

Schedule

08:30 - 10:15 NWI-IB001 Software Engineering AT HOME - FNWI Eekelen, M.C.J.D. van Kop, C.L.M. Lecture Study guide	10:15 - 12:00 NWI-IMC021 System Development Management AT HOME - FNWI Eekelen, M.C.J.D. van Kop, C.L.M. Lecture Study guide
11:30 - 18:30 NWI-IMC021 System Development Management Gip kamers Eekelen, M.C.J.D. van Kop, C.L.M. Computer course Study guide	
13:30 - 18:30 NWI-IB001 Software Engineering Gip kamers Mercator Eekelen, M.C.J.D. van Kop, C.L.M. Computer course Study guide	13:30 - 18:30 NWI-IMC021 System Development Management Gip kamers Computer course Study guide
	15:30 - 17:15 NWI-IMC021 System Development Management AT HOME - FNWI Eekelen, M.C.J.D. van Kop, C.L.M. Lecture Study guide

Wednesday morning: shared lectures today, and next week.

Wednesday morning: SE lectures in other weeks in the third quarter.

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Wednesday morning: in the 4th quarter: shared work time

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Wednesday afternoon: shared work time.
(you can choose another time).

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(you can choose another time).

Thursday afternoon: SDM lecture

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Wednesday morning: in the 4th quarter: shared work time

Wednesday afternoon: shared work time.
(you can choose another time).

Thursday afternoon: SDM lecture

Presentations: vary by team

In your first week

- 13:30–14:15 today: finalising the teams
- 14:20–15:00 today: getting to know each other
 - What are your skills, and how experienced are you?
 - What is your preferred role in a team?
 - Are you someone who likes to take the lead, or who is told what to do?
 - How do you like to collaborate?
 - What would your preferred times for working together be?
 - ...
- 15:00–16:00 today: getting to know your client
 - What is their vision for the project?
 - What are their key priorities? Are any parts “nice to have, but okay to omit”?
 - What could you get started on right now?
 - How do they like to be contacted?
 - When will your next appointment be to learn more details?

In your first week

- 15:30–17:15 tomorrow (SDM): lecture by Edwin
 - SMART requirements, and how to manage your client
 - assignment
- Rest of the week (SE):
 - start preparations (reading existing code, learning the language, making a mockup design etc.)
- Rest of the week (SDM):
 - start on assignment
- 10:30–12:15 next week: shared lecture
 - agile development process
 - Scrum

After your first week

- Work on average 10.5 hours per week.
(Warning: do you want to work during exam weeks?)
- Managers should all do core tasks
(Don't just let one person manage the team and the other manage the client!)
- Perhaps: split up in two subgroups with dedicated managers.

COVID situation

- The entire course is online!
- **Normally:** work in a group common room; focus on face-to-face communication
- **Now:** work in a **digital** group common room; focus on **digital** face-to-face **and voice** communication
- **Recommendation:** use Discord

Final notes

- **Schedule:**

- The schedule shows a common reserved time, but you are free to use any slot in the week.
- Planning is available on Brightspace and will be on <http://www.giphouse.nl>.

- **GiP rooms**

- Three GiPHouse rooms on the fifth floor: M1.05.03, M1.05.04, M1.05.05.
- Can be entered using your keycard (if we set this up).
- Rooms can be reserved at <https://giphouse.nl/reservations/>
- Keep these rooms clean and use them for GiPHouse only.

Final notes

- **Communication lines**

- For issues relating to your project, address your managers or directors first.
- Directors and CEO/COO can be reached at `directors@giphouse.nl`
- The teaching assistants (CEO/COO) can be reached at: `giel.besouw@giphouse.nl` and `mick.tuit@giphouse.nl`
- For course-related issues, contact either the teaching assistants, or contact the teachers at: `teachers@giphouse.nl`
- For technical issues, contact our technical director Joren Vrancken at: `joren.vrancken@giphouse.nl`

Final Notes

- **Systems**

- All code tracking must be done through GitHub. We will provide repositories for everyone.
- We use the tools from GitHub as a continuous integration testing environment.
- Recommendation: do all project tracking through GitHub as well.
(But: directors get the final say on this.)
- Servers through Amazon.

- **Best practices**

- Meet weekly to work on project **together** in scheduled hours.
- Make sure everyone has a working camera and microphone.
- Communicate openly and early with managers and directors.
- Start working on quality code and tests early.

Fall term GiPHouse (master)

- Software Development Entrepreneurship
 - Work in a team to **create your own start-up**.
 - Create a product and make it successful!
 - business model canvas
 - getting out there
 - elevator pitch
 - working code
 - minimal viable product