SIS Redesign

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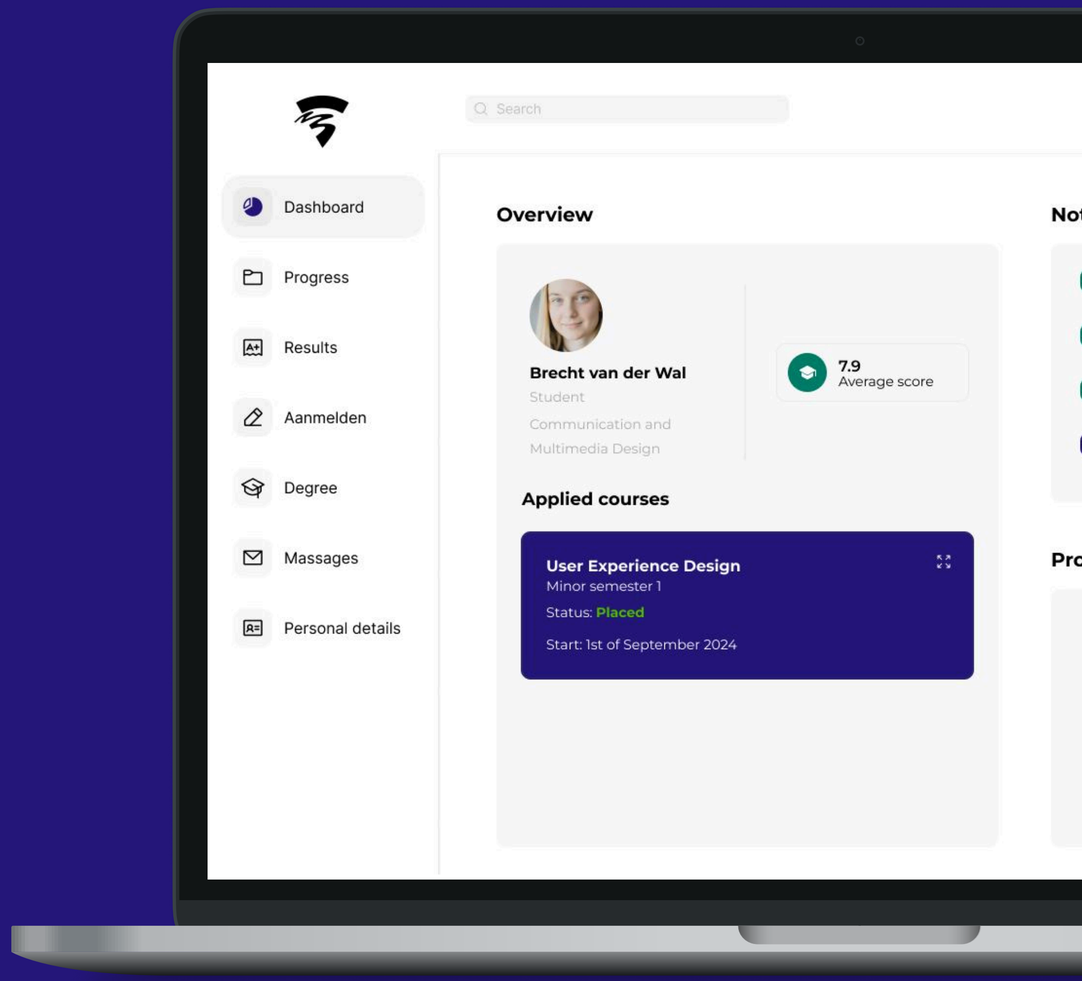

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Introduction

Introduction

The Student Information System (SIS) is an important system for students to manage their academic progress, enroll in minors, and access results. Despite how important it is, the current SIS design has a lot of issues. Many students find it confusing, inefficient, and stressful to use, especially during minor enrollment. This redesign focuses on making the system simple, clear, and easy to use for everyone.

How might we...

Create an intuitive and streamlined interface for SIS that allows students to easily find, enroll, and track their academic progress while giving clear feedback?

Current situation

Based on research findings, the current SIS system has several problems:

Hard to navigate

Menus and options are cluttered, making it difficult to find important features.

Search is limited

Users struggle to search for minors effectively because of poor filters and no error tolerance.

Lack of feedback

Students feel uncertain about actions like enrollment because of unclear or missing confirmation.

Generic experience

The system doesn’t adapt to individual needs or preferences, which makes it less engaging.

Requirements

The following requirements were developed based on the research that i wanted to include:

Simplify navigation

Group similar features and remove unnecessary clutter. Make it easier for the user to find things.

Better search tools

Add filters for things like semester and ECs, and allow error-tolerant searches.

Improve feedback

Show clear feedback after important actions like enrollment.

Personalization

Save minors, get reminders for deadlines and give a better option to choose minor .

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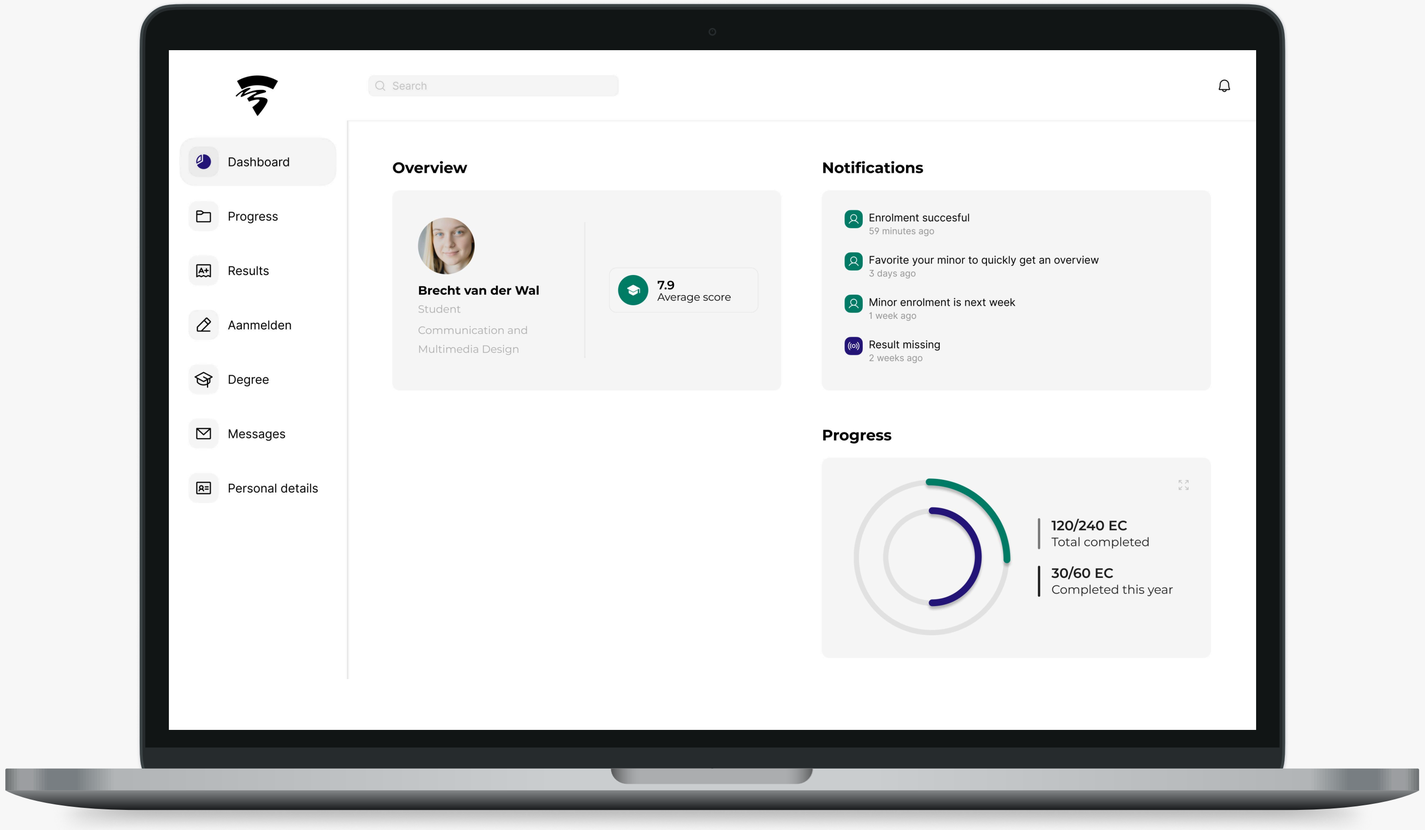
Final design

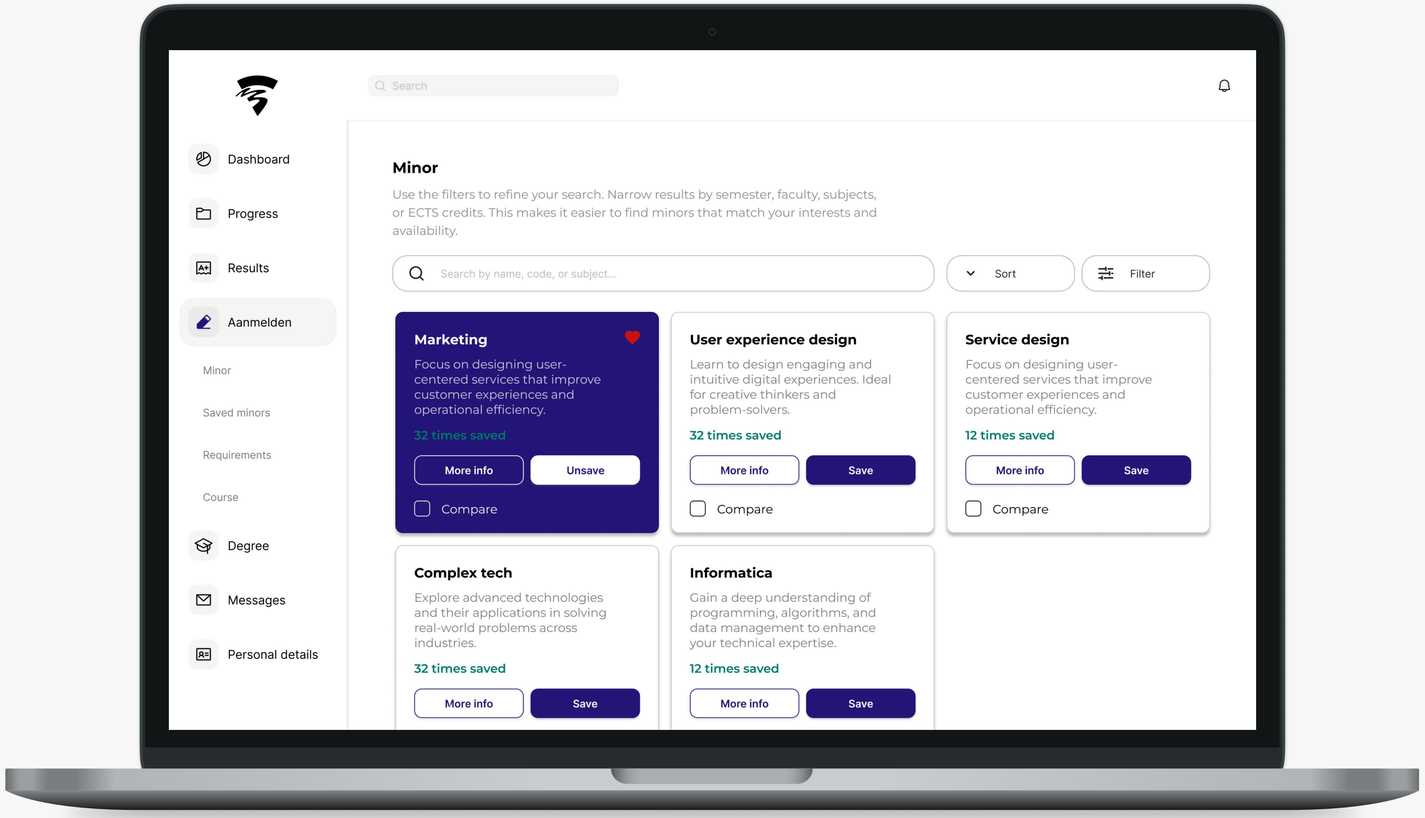
Dashboard Overview



The dashboard gives students a clear overview of their academic progress, upcoming deadlines, and notifications. It centralizes all the important information in one place, so users don't need to search multiple pages.

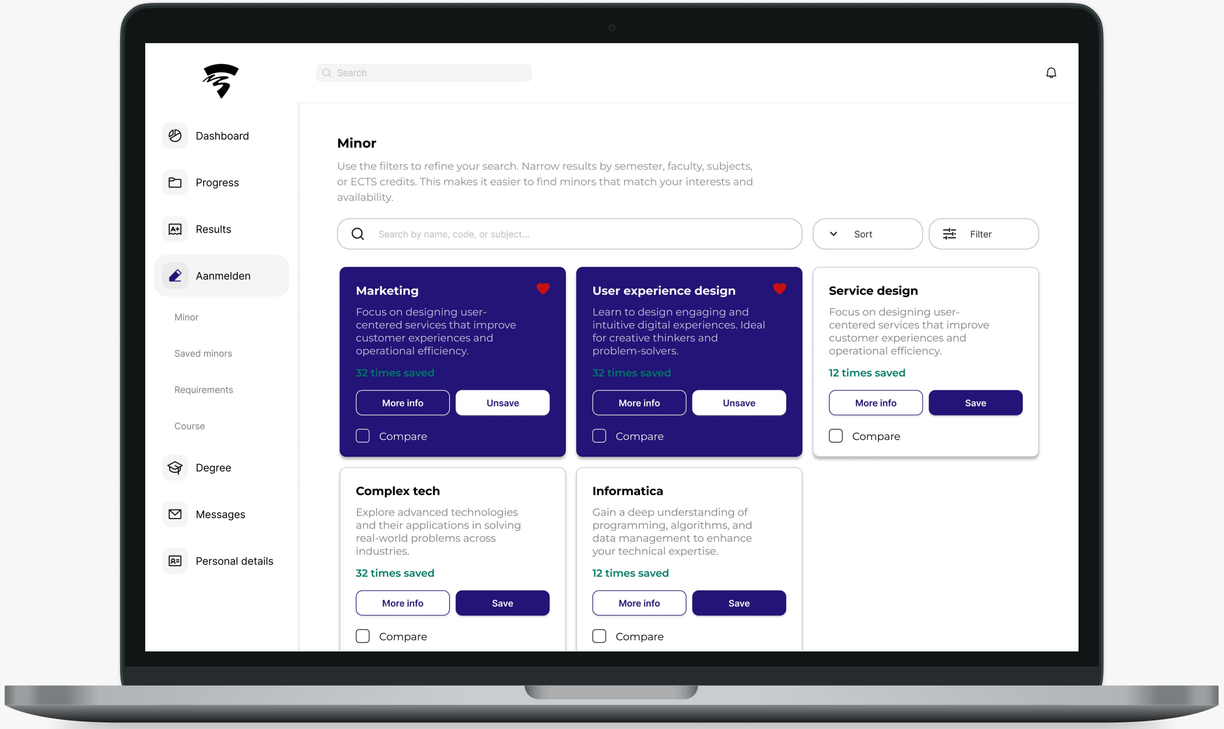
- **Why this was done:** Research shows users feel overwhelmed when information is scattered. The dashboard simplifies navigation and reduces cognitive load by displaying key details (Research Documentation, p. 3, 2025).
- **Improvements**: Features like the progress bar visually shows academic progress (Gestalt's principle of closure), while notifications keep users informed and organized. This aligns with Norman's behavioral design principles, ensuring the system feels functional and user-friendly (Norman, 2004).

Search for Minors

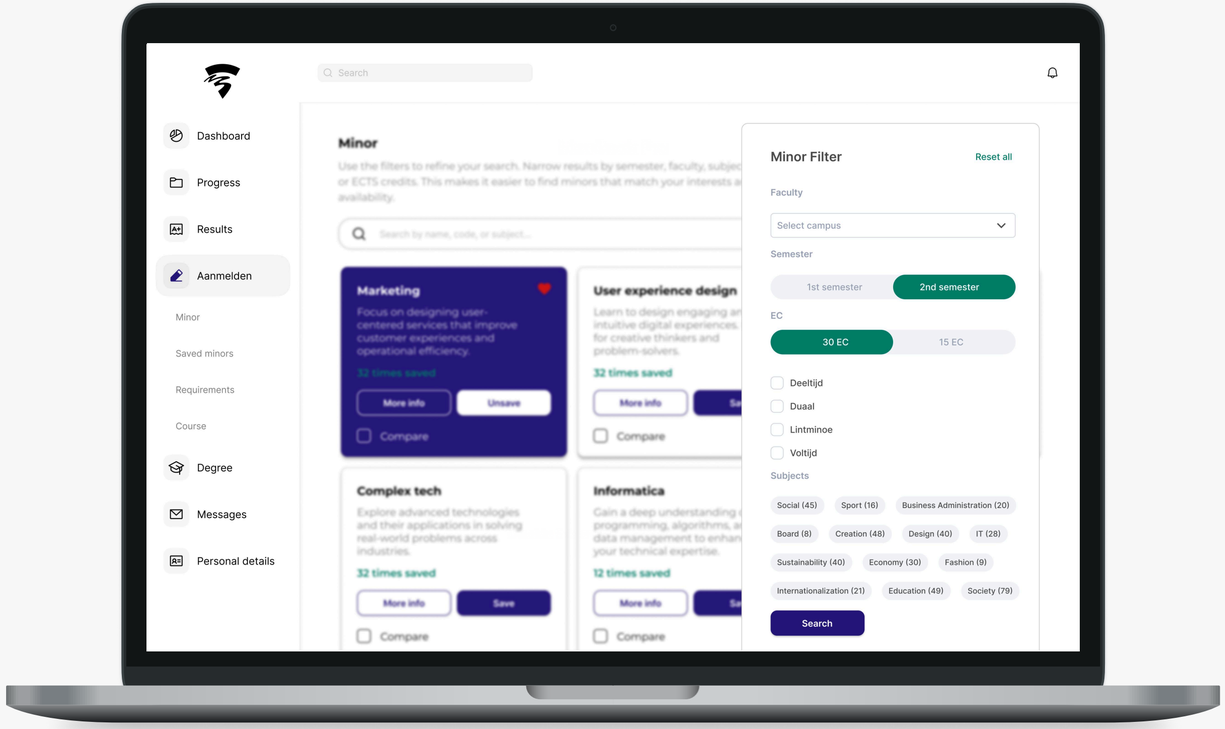


This page has a filters, fuzzy search, and popularity metrics (“times saved”) to give expectations. Showing how often a minor is saved gives users an expectation on how populair a minor is.

- **Why this was done:** Users want transparency when making decisions. Highlighting popularity helps manage expectations and avoid disappointment when a minor is full.

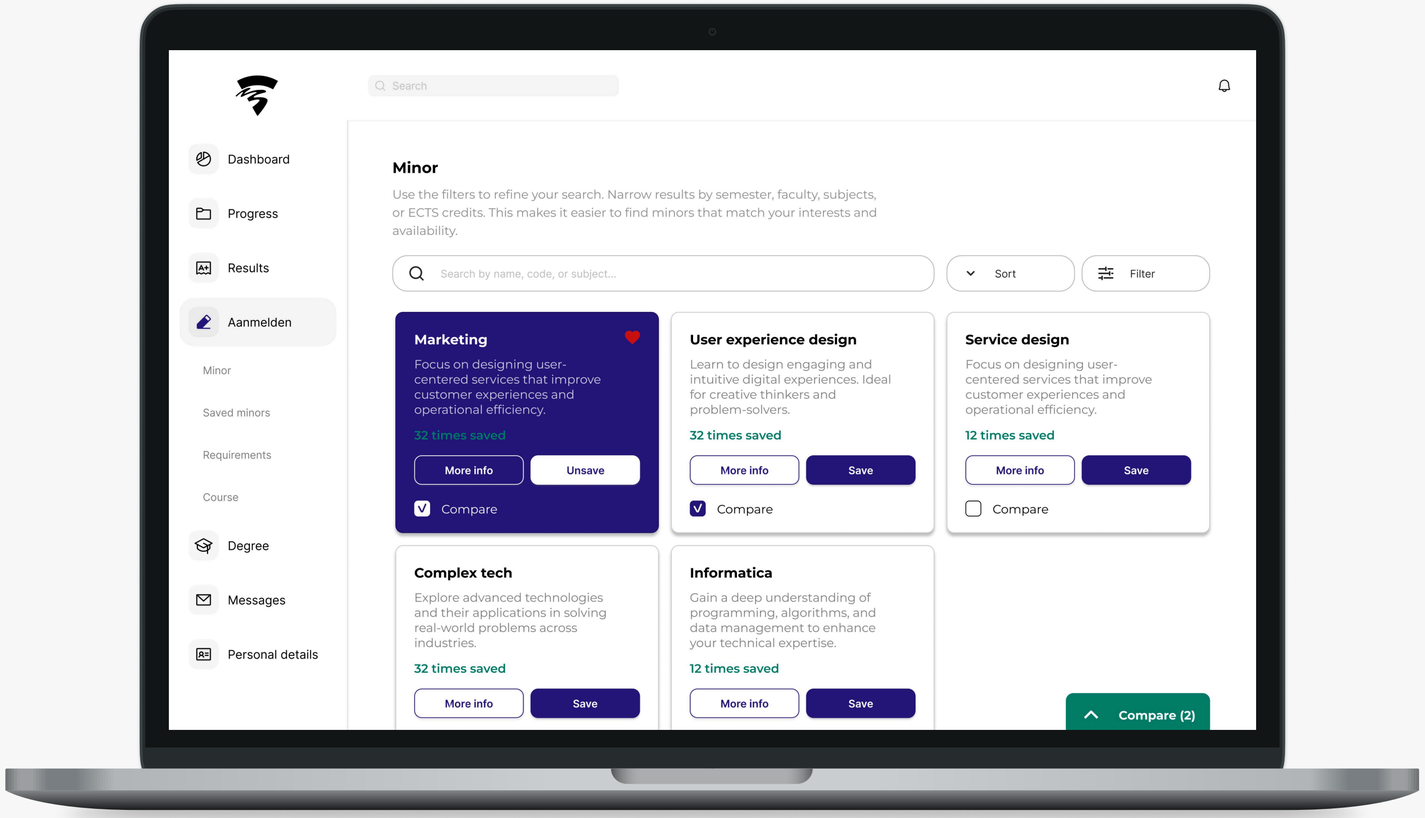


Saved minors are shown first on the search screen. This way the user can directly re-find what is saved. An additional ‘saved minors’ page is shown in the menu.



The filter function on this screen is showing multiple ways to search for a minor besides typing the name or code. Filters make exploring and narrowing options easier, aligning with Donna Spencer’s principles (Spencer, 2011).

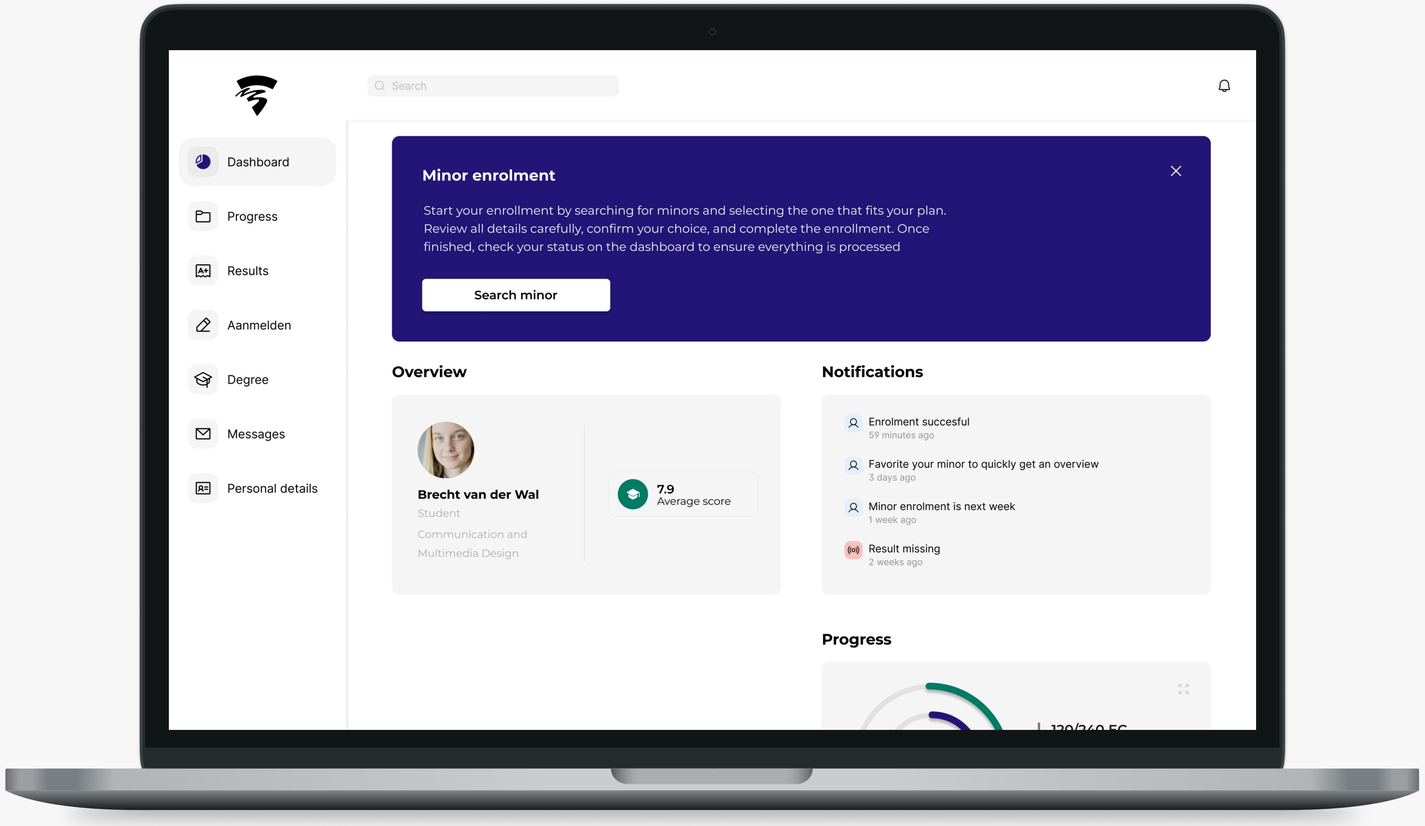
Compare minors



This page introduces a comparison feature that allows students to compare minors. Can be used to compare key factors like popularity and credits. Although not fully developed, it shows the potential for helping users make decisions.

- **Why this was done:** Comparison tools reduce decision fatigue, especially when users are choosing between similar options.

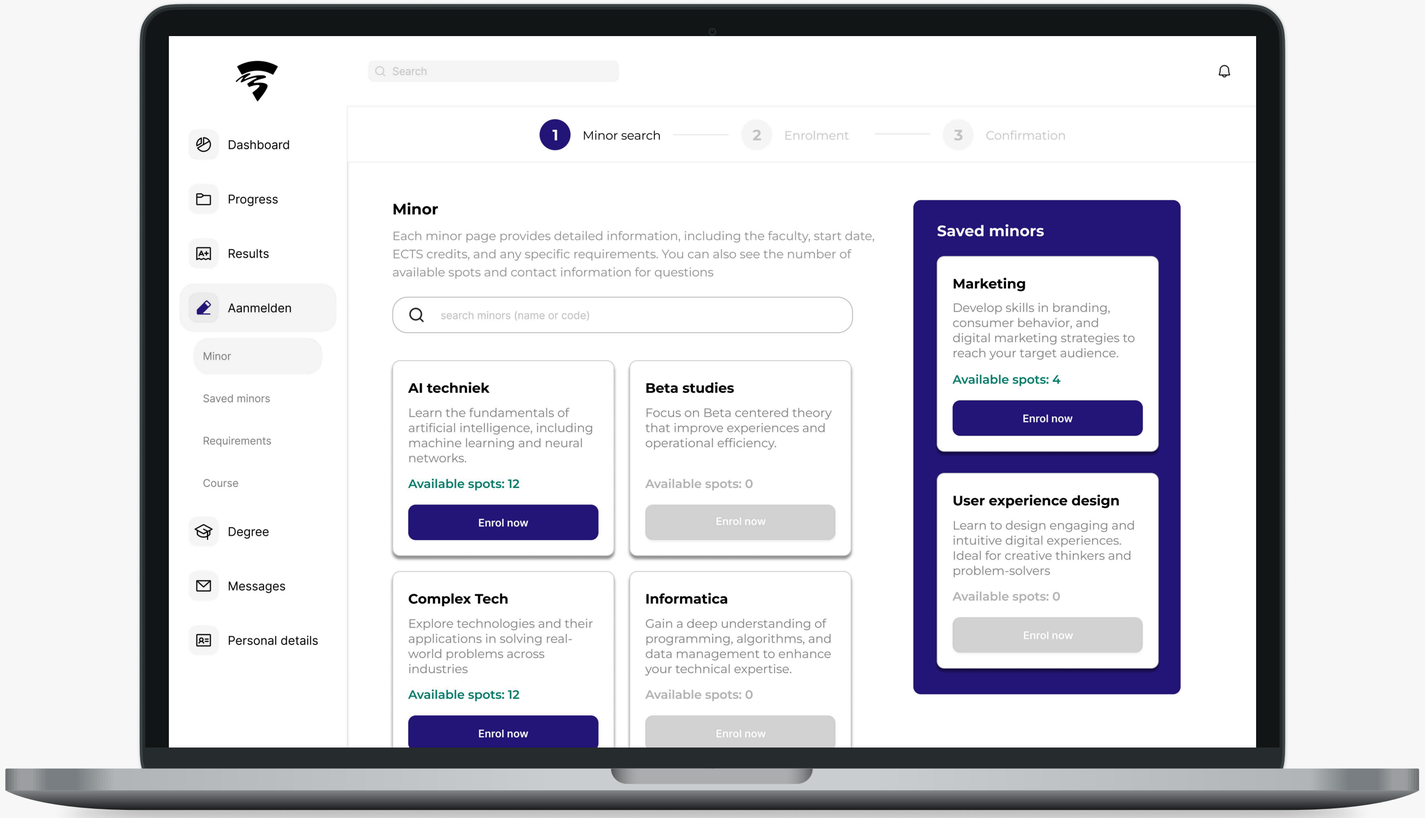
Minor enrollment



During the minor enrollment period, a popup guides users directly to the enrollment page. This shortcut saves time.

- **Why this was done:** Research highlighted frustration with hidden features. The popup ensures that important actions are visible and accessible during important periods.
- **Improvements:** By making the enrollment process more visible, this feature reduces user stress.

Minor enrollment - search

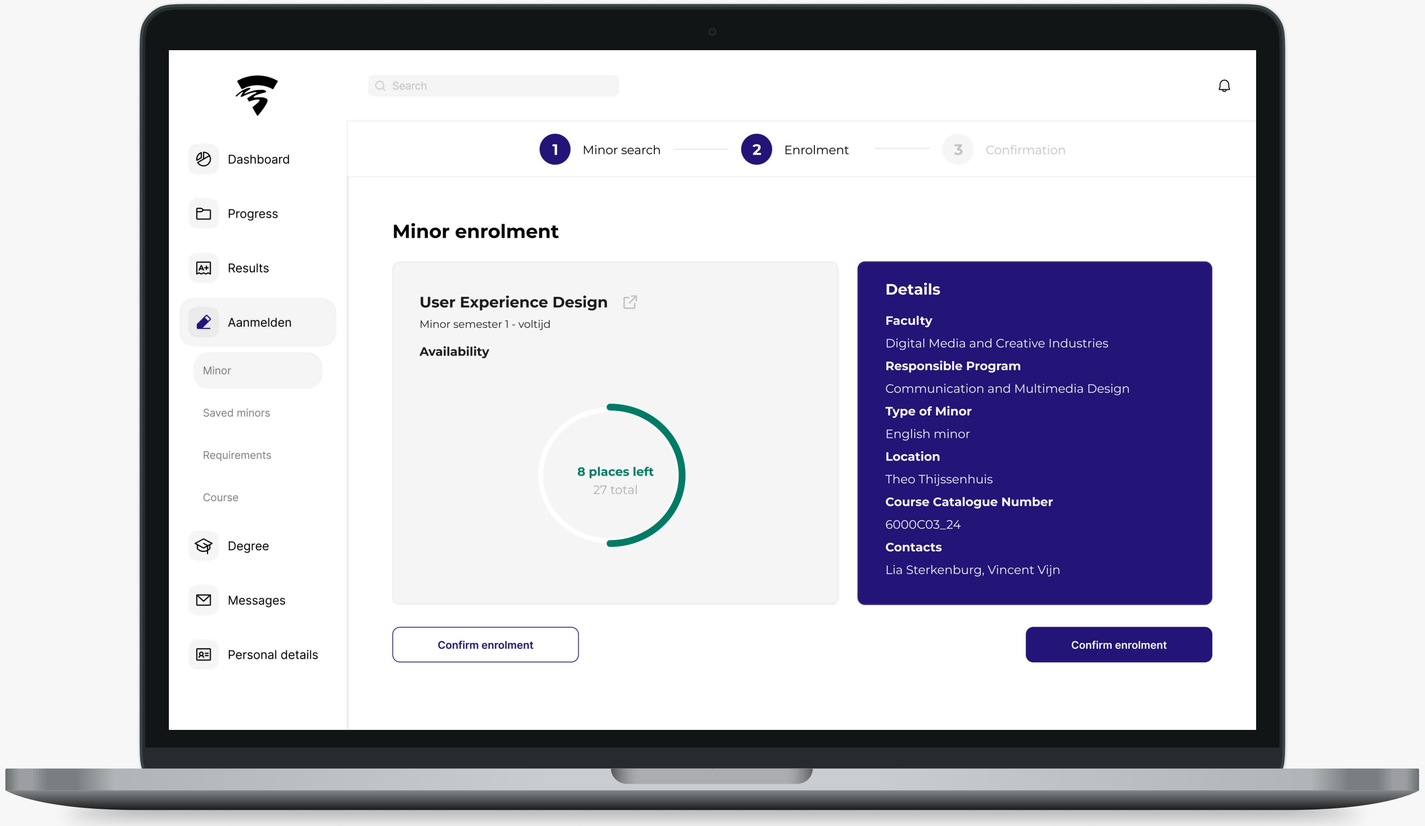


After clicking on the minor enrollment popup, the user is guided through a tunnel process with multiple steps to confirm the enrollment. This page highlights the user's saved minors, showing what was prepared before the enrollment period. Also, the page displays the availability of each minor, making it clear to the user if spots are still open.

If the user has not prepared or saved any minors, they can easily search by name or code. A fuzzy search is included to ensure users don't get frustrated from misspellings or incomplete inputs.

- **Why this was done:** The current system lacks a guided process, leading to confusion and errors during enrollment. Adding a structured step-by-step tunnel helps guide users, reducing mistakes and stress. Research highlights the importance of clarity in processes like enrollment . And, fuzzy search helps search , ensuring users find results even with incomplete information (Spencer, 2011).
- **Improvements:** Showing saved minors upfront supports re-finding, while showing spot availability reduces uncertainty. This aligns with the Gestalt principles of proximity and clarity. And to Norman’s behavioral design by emphasizing functionality and usability in the step-by-step process (Norman, 2004).

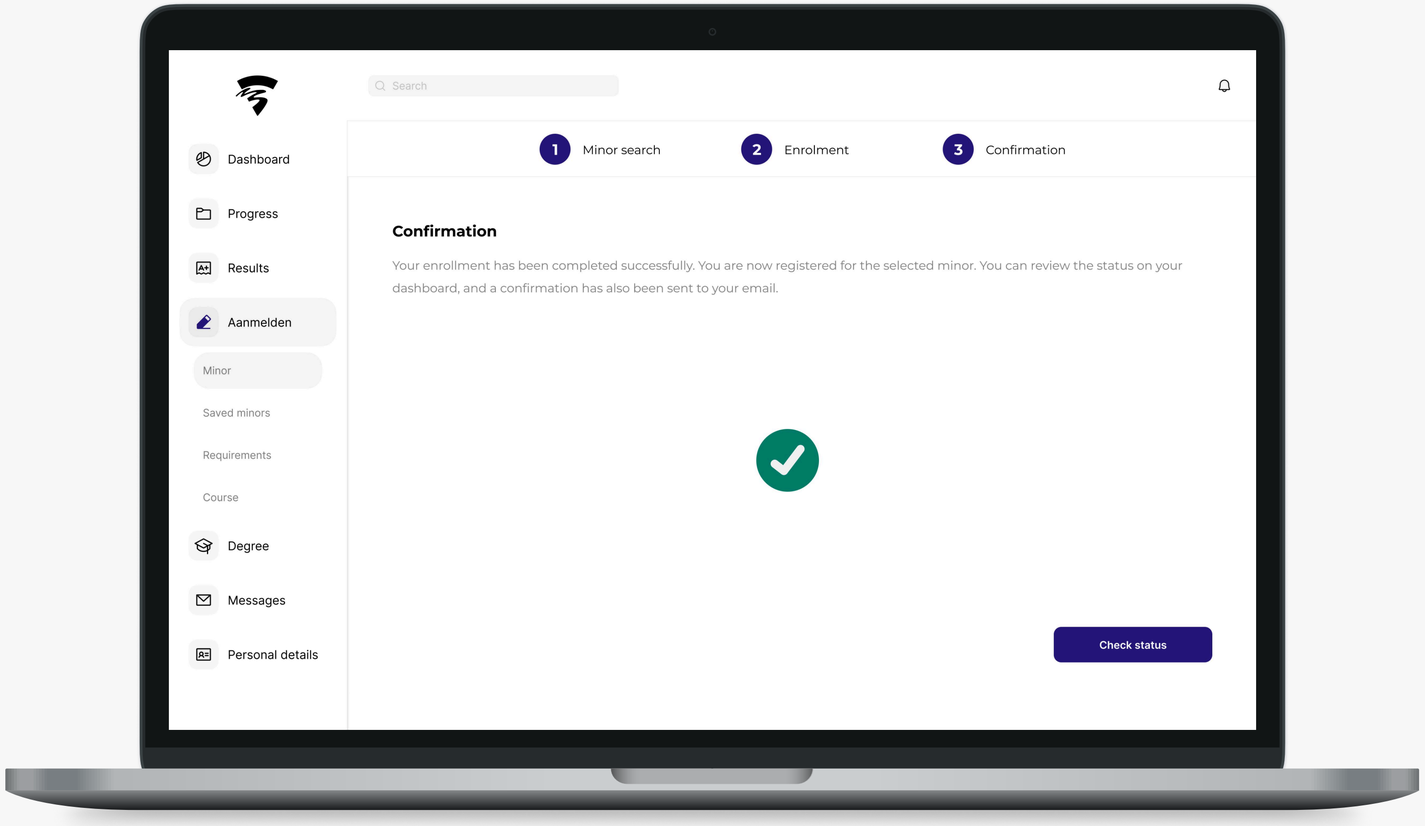
Minor enrollment - check



This page summarizes details about the selected minor, such as availability, faculty, and course specifics. Users must confirm their choice to proceed.

- **Why this was done:** Students want to review details before committing to decisions. This step helps prevent errors and supports informed decision-making (Ideation Document, p. 5, 2025).
- **Improvements:** The availability of spots is clearly displayed.This feature is aligned with Maslow's safety level, as it ensures students feel secure about their choice (Maslow, 1943).

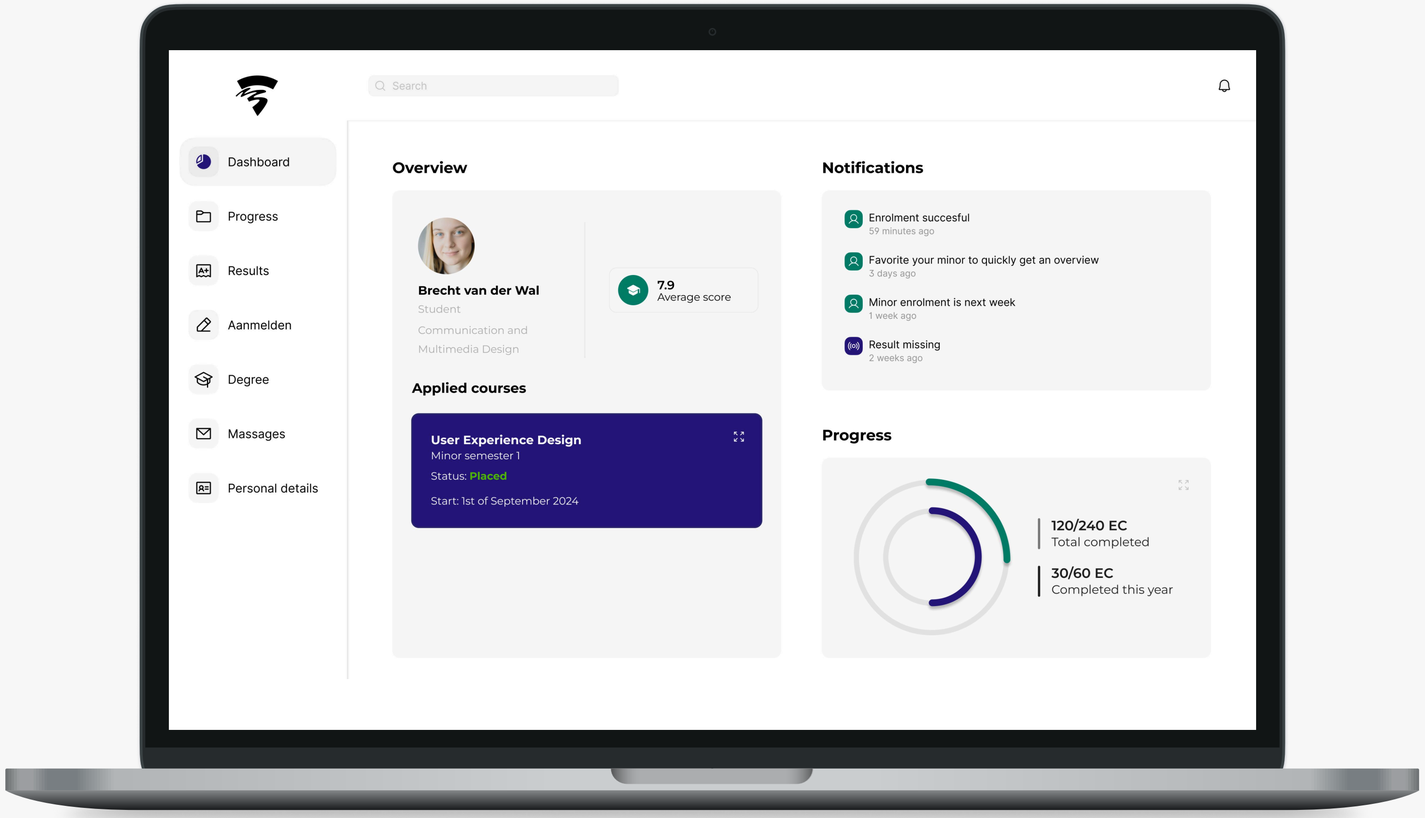
Minor enrollment - confirmation



After a student confirms their enrollment, this page gives immediate feedback and reassures them the process is complete. It also offers options to check the status or navigate back to the dashboard.

- **Why this was done:** Confirmation screens gives a user confidence and give closure to actions. This is based on Norman’s emotional design theory (behavioral stage) and aligns with user feedback on the importance of clear messages.

Minor enrollment - status



This page shows the current enrollment status of a minor, including start date and confirmation. It reassures students that their enrollment is complete.

- **Why this was done:** Providing clear feedback is essential for user trust. Feedback mechanisms reduce anxiety and let students focus on other tasks.
- **Improvements:** The design is simple but effective, showing a clear status and next steps. This follows usability heuristics, ensuring visibility of system status (Nielsen, 1995).

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Foundations

Theoretical foundations

The following theories guided my design:

- **Maslow’s Hierarchy:** Address basic functionality first, then provide personalization.
- **Norman’s Emotional Design:** Focus on making the system appealing, usable, and meaningful.
- **Gestalt Principles:** Group related actions and make the interface visually clear.
- **Information Finding Strategies:** Help users explore, refine, and re-find content easily.

(Project II Design Phase, p. 23)

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Conclusion

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The redesigned SIS simplifies navigation, improves feedback, and makes the experience more personal and engaging. By focusing on user needs and testing each iteration, the design directly addresses the problems identified during research.

Recommendation

To further improve the SIS experience, I recommend:

Implement favorites

Allow students to save and prioritize minors easily. To make the enrolment easier.

Use filters effectively

Ensure filters are intuitive and provide relevant options like availability.

Enhance feedback

Improve feedback after important actions to ensure clarity and confidence for users.

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