The Team

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Vision

Create an interactive, dynamic graph visualization of course prerequisites at a university. This aids long-term degree planning and course discovery.

[**UW IT**](#) and the [**MyPlan**](#) team support this project. If successful, parts of this project may be integrated into MyPlan.
Architecture

- Periodically read, parse, and process course data from UW’s course catalog API.

- Django (Python) used for graph storage, serving AJAX requests, and managing client session state.

- Client-side graph visualization and interface written in Javascript, backed by AJAX.
Challenges

**Usability**: Identifying users’ needs through user research, and designing an interface that meets those needs.

**Graph representation**: Course prerequisites are logical expressions (e.g. CSE 332 OR CSE 326). We will need an efficient and queryable representation of these relationships.

**Graph algorithms**: Automating the discovery of sets of prerequisite courses that enable a student to take more advanced courses.

**Efficient architecture**: Minimizing server-side computation to allow the system to gracefully scale to all of UW.