

CS460

Senior Capstone

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For my senior capstone project, I am proposing a web-based tool that can be used by the Non-Traditional Program office to create, update and maintain student degree requirements, and allow editing of the same.

Currently, in the Non-Traditional Program(NTP), due to the differing requirements of the programs, each student must have their transcripts evaluated by hand, those transcripts are then placed into an excel spreadsheet. The requirements are manually compared against the degree requirements, and then the remaining requirements are manually calculated, with the help of some simple Excel macros. Each student must have this individual spreadsheet updated every semester.

My proposal is to create a web-based tool that stores each class offered by WVUP, and the degree requirements that it fulfills (for example, ENG 403 fulfills 3 hours of General Education, Higher Education, English and Humanities. ) This tool will also store the non-traditional degree requirements, as dictated by the NTP office. The tool will retrieve a student's transcripts from OLSIS, correlate the degree specified, and outline which requirements have been fulfilled, and which ones are outstanding.

This tool would, minimally involve a web server, a data retrieval and transformation tool, a backing database, and two simple web clients, one for defining class and degree requirements, and one for displaying the outcome of the calculations. Possible extensions to this tool could involve: Student ability to view this, via OLSIS, a mobile app, and UI refinements to make it visually appealing, instead of merely functional. It could also retrieve upcoming semester class schedules and indicate which ones can fulfill outstanding requirements.

This project would involve a representative from the NTP office, it would also involve interacting with WVUP's IS&T or Records office (to access student records and offered classes). A server would need to be given access to some sensitive information, so the university's security policies would have to be taken into account.