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Excel Programming For A Visual Degree Progress Report

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Problem Statement

The University of Southern Maine is like many colleges in the fact that its engineering program has a lot of extensive requirements that a student must achieve before receiving a degree. These include but are not limited to the core and department curriculums, GPA, and Residency Requirements. Most of these are easily accessible to the student on MaineStreet to track progress like the example degree progress report in Figure 2. This progress report shows all of the information by what requirement each class satisfies so it can be really time consuming to scroll through them all, for example, to see if you meet certain pre-requisites. Figure 3 shows the course history by subject which can be found on MaineStreet. This information is a lot easier to navigate and also shows the past attempts for a course. This form however does not show the requirement that the course satisfies nor does it show what classes are needed in the future. The engineering department made their own version of a progress report in a more visual way. This progress report has to be manually updated every semester which can be time consuming.

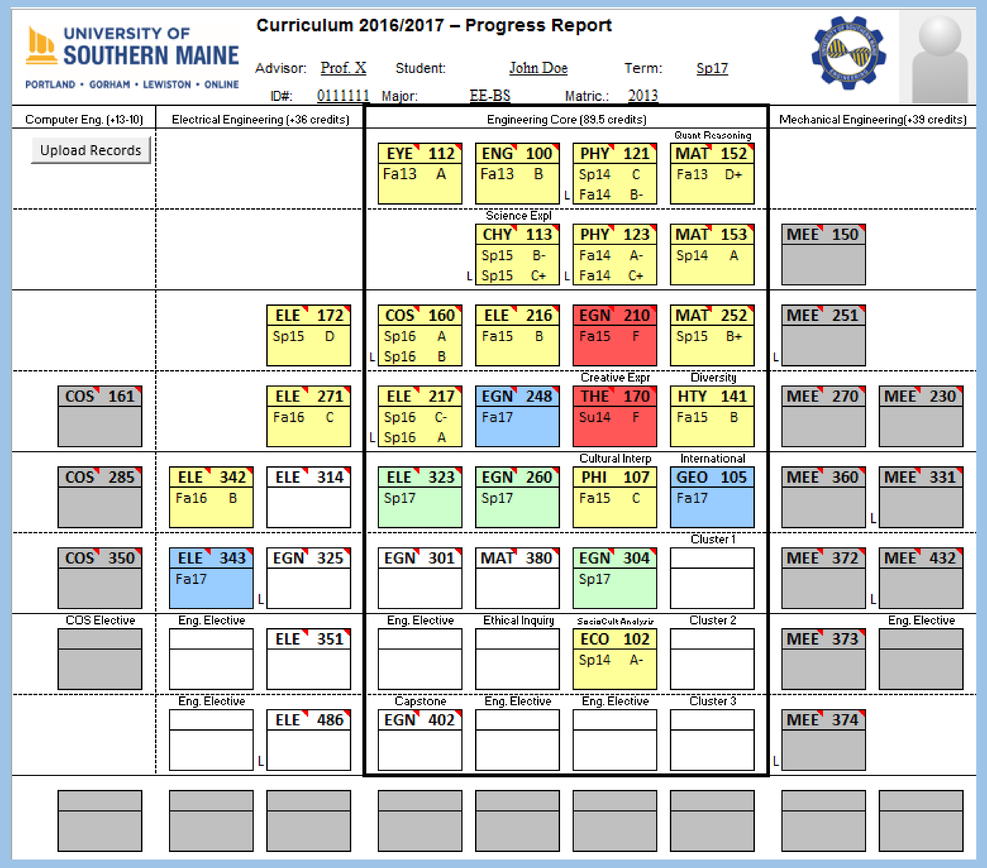

Figure 1. Degree Progress Report in Microsoft Excel

Course	Course Title	Course Type	Term	Official Grade	Units Taken	Repeat Code	Earn Credit	Include in GPA	Instructor	Transfer/Test Credit
PHI 106	Intro:Why Philosophize ?	LEC	2013 Fall	F	3.00				John N Hines	
PHI 107	Intro:World Philosophy	LEC	2015 Spring	F	3.00	PREV			Derek Anthony Michaud	
PHI 107	Intro:World Philosophy	LEC	2015 Fall	C	3.00	CURR			Derek Anthony Michaud	

Figure 2. Degree Progress Report on MaineStreet

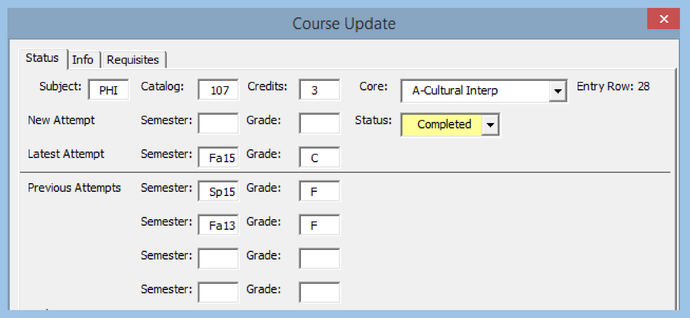

Figure 4. User Input Form

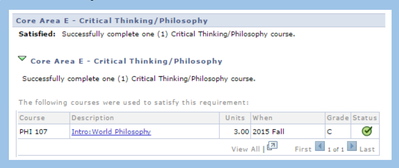

Figure 3. Course History By Subject

Proposed Solution

I decided to use this engineering student progress report and add features that assist them including automating the input of grades. This new progress report is shown in Figure 1. This example is of a student a few years into the electrical engineering program. This version of a progress report shows the same course that was shown on MaineStreet but in a more visual way. Figure 4 shows the user input form which can be accessed by clicking on the course. This gives the user all necessary information relating to the course in a very organized fashion. This progress report gives more information than the one on MaineStreet in a more user friendly fashion to assist faculty and students alike.

Features

•Layout- The layout of the new progress report can be seen in Figure 1. This layout has not changed too much from the original with the most notable change being a row of courses on the bottom for classes that don't count towards the curriculum.

•Previous Attempts- A list of previous attempts at a course may also be seen on this progress report either on the user input form or on the raw data sheet up to a maximum of five attempts.

•Comments- The red corners in the cells indicate a popup comment in Excel. In the top left corner of each course cell is the course title and the one to the right is the course description. These two comments and the additional four cells can all be adjusted in the user input form.

•Color-coding- The original document had a color-coding system based on course completion status that worked well so I used the same system but made it automated. These colors can be seen in Figure 1. The gray is not required, yellow is completed, red is pending, green is enrolled, and blue is advised.

•User Input Form- A user input form can be accessed by clicking on any course. This form is shown in Figure 4. This form can be used to view or change any information about the course including past and current attempts, completion status, course title and description.

•Automation Process- The main feature of this progress report is the automatic transfer of grades from a query file obtained from MaineStreet. This can be done by individual semester or for an entire students' history. This feature will automatically transfer all necessary information and organize it accordingly into the student degree progress report.