

## Software Verification and Validation, ESOF 411, Fall 2019 TDD for AbOut Course Functions, Feb. 20 (Wed)

Updated Feb. 12, 2019

Using test driven development, refactor AbOut, so that the following functions can be tested. Test the functionality of the functions, and the functionality to the database. In general, changes to the functions should NOT necessitate other changes to AbOut code. However, feel free to make the necessary modifications if you want to remove the call to `addCourseOutcomes` within `addCourse` and `updateCourse`, along with the call to `deleteCourseOutcomes` within `deleteCourse` and `updateCourse`.

The functions are located in AbOut/admin/model

- `addCourse(cAbbrev, cName, csFlag, seFlag, begin, end, outcomes)`
- `addCourseOutcomes(cAbbrev, outcomes)`
- `deleteCourse(cAbbrev)`
- `deleteCourseOutcomes(cAbbrev)`
- `updateCourse(cAbbrev, cName, csFlag, seFlag, end, outcomes)`
- `getCourses()`
- `getCourse(cAbbrev)`
- `getCoursePrefixes()`

The AbOut repository is at [git@gitlab.cs.mtech.edu:ESOF326/S19/AbOut.git](https://gitlab.cs.mtech.edu:ESOF326/S19/AbOut.git)

The repository contains a branch “ESOF411\_VerificationValidationEfforts”. Create branches off this branch in order to do your work. When your work is complete, submit a merge request into the branch “ESOF411\_VerificationValidationEfforts”.

Following is a link to PHP version 5 (which we are using) chapter on database testing:

<https://phpunit.de/manual/5.7/en/database.html#database.will-phpunit-re-create-the-database-schema-for-each-test>

### Parameter specifications:

`cAbbrev` – Value from Prefix table, followed by a space, followed by a 3 digit number, followed by an optional ‘w’. Feel free to use ‘COMX’, ‘CSCI’ and ‘ESOF’ for the prefix values.

`cName` – between 1 and 80 characters

`csFlag` – either 0 or 1

`seFlag` – either 0 or 1

`begin` – integer >0

`end` – integer >0 or null

`outcomes` – list of `oAbbrev`

`oAbbrev` – Value from OutcomePrefix table, followed by a space, followed by a-z or 1-9. Feel free to use ‘CAC’ and ‘EAC’ for the prefix values.