College of Pharmacy

Guideline for Preparing the Course Files

PharmD Program

v 2023

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1   Introduction:

The College of Pharmacy (COP) at King Khalid University (KKU) has adopted a list of course files (refers to Table 1) which needs to be completed throughout the semester by all course coordinators and submit to Quality & Development Committee within the first week of next semester of each academic year. Table 1 shows the list of course files. The step-by-step instructions are given below for completing the course files.

Table 1: Lists of course files.

SL	Document Name	Deadline	Version of file/template to be submitted
1.1	Course syllabus	Beginning of each semester	PDF file-Tv2 (Theory), TPv2 (Theory & Practical) template 2023
1.2	Rubrics of CLOs Assessment (DMA analysis report	Along with the continuous assessment	Excel file- v3.2 2023
1.3	Course Report (CR)	End of semester	PDF file – TP-154 v2023 template
1.4	Student Grades and Statistical Analysis Reports (SGSAR)	End of semester	Excel file- v 2.3-2023
1.5	Final results report	End of semester	PDF file extracted from academia
1.6	Field experience report	End of semester	PDF file- 2023 template

1.1 Course Syllabus (CS):

Each course instructor should fill-up an official template with the appropriate information and upload in the Blackboard after getting approval by the HOD (Head of department) at the beginning of each semester. Note that there are two versions are template are available which are know an as Tv2 (Theory only course), TPv2 (Theory & Practical course) template respectively.

1.2 General instructions:

- Open the appropriate course syllabus file (PDF) using Acrobat reader or Adobe reader application in Google Chrome platform.
- Regarding the time and locations, in each campus (Al Guraiger & Al Faraa) need to mention the section numbers and time accordingly.
- After filling-up this file, safe it as non-editable file by opening the printing settings (CTL+P), change the option to **Save as PDF** and save it with an appropriate name.

1.3 Rubrics of CLOs Assessment (DMA analysis V3.2-2023):

The widely used Microsoft Excel has been used in measuring student's performance through all the approved direct method of assessments of different courses indicated in the specific course specification (CS) of Pharm D program.

1.4 Special instructions regarding handling the DMA excel sheet:

- Regarding DMA excel spread sheet, please work on white excel cell ONLY, do not touch the grey cell.
- Please do not create a sheet and copy the contents from another sheet. It just won't work. Use extra sheets that already created at the end. Determine how many sheets is needed, rename them, and delete extra sheets (would recommend they keep the extra sheets until before submission, just in case if they need them).
- Please always paste as text (or matching the existing format). So you will have one format (same font size, type, and color) for all courses.
- Do not convert the format of the file to older versions (e.g. xls), and to keep using the new format xlsx. Excel 2007 and after supports this version.
- In step 2, delete any extra columns (not just clearing the contents). For example a 30- qs exam, delete qs-31 to 100 columns. When you do that, you will have to select the columns from the header (letters at the top), and delete columns (not just clearing the contents).
- In each sheet, remove extra rows for the models in the same manner of removing the columns.

- In each sheet, they should fill out the info from top to bottom, meaning marks then CLO them % of students.

1.5 Procedures for obtaining the student's performance quantitatively:

All course co-coordinators should fill up the general information such as dept, course, number of students, semester number. Note that college of pharmacy has adopted scoring rubrics such as Satisfactory (80-100%), Developing (50 -80%) and Unsatisfactory below 50% for % achievement of each PLO. Stratified of the analysis both campus Al Greigor and Al Faraa needs to be selected in the first table of Summary sheet (Table 2). Then a matrix table called blueprint containing limit of different course learning outcomes (CLOs) vs assessment methods needs to be filled up using allocated marks of different assessments. However, the mapping with PLOs (Program Learning Outcomes) vs adopted CLOs according to the Pharm D (3 domains) PLOs are already linked. The achievement of each CLO is measured based on the weighted average. See the below screen shot the of DMA excel sheet.

Table 2: Summary sheet of DMA file:

King Khalid University - College of Pharmacy

Program	Doctor of Pharmacy (PharmD)		Year	1444 (2022/23)		Target (domain 1)	80%
Department			Term	Second		Target (domain 2)	80%
Course code	-- Select Course --		Students			Target (domain 3)	85%
Course title	---		Coordinator			Target (domain 4)	-
Campus	Alfaraa & Guraiger					Target (domain 5)	-

Stratification of the analysis

Stratified By	Campus		
Campus 1	Alfaraa	Section #s 1	1111, 2222
Campus 2	Guraiger	Section #s 2	3333, 4444

Assessment Method	Marks per assessment	Course Learning Outcomes (CLOs)
Assignment 1	0.0	
Assignment 2	0.0	
Mid MCQ exam	0.0	
Mid SA exam	0.0	
Final exam	0.0	
% of mark/CLO	0.0	

	% of achievement per CLO	
Stratified By	Total	
Campus Alfaraa	-	
Campus Guraiger	-	
Combined Yes	-	
Aligned PLO		## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ##

- All course co-coordinators should fill up the **Top table** (Marks and CLO distribution for each question) of Mid Exam (T) sheet, with each question numbers, corresponding CLOs adopted for the exam. After finishing the exams (for example Mid T- MCQ) and scanning the OMR (Optical Mark Reader) answer sheets for all models by the automatic scanner-AlMosaheh version 10. The scanner operator will send all results generated along with **Item analysis** file in excel sheet. Then copy the percentage (%) of students with correct

answers for each question/CLO for each model and paste in the **Mid Table** (Percentage of students with correct answers for each question (extracted directly from item analysis) in Mid Exam (T) sheet in the specified place representing different models. From sem 442 to onward both campuses Al Greigor and Al faraa are selected separately. Then average achievement for each questions/CLOs will be calculated automatically by the in-house developed excel sheet with special commands. Subsequently the final achievements (%) for all adopted CLOs for the specific course will be shown in the table (bottom). Please see the Table 3 of the 2nd page of DMA excel sheet.

Table 3: 2ⁿᵈ page of DMA excel sheet.

Marks and CLO distribution for each question																					
Item	Total	Q 01	Q 02	Q 03	Q 04	Q 05	Q 06	Q 07	Q 08	Q 09	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20
Mark/qs	0.00																				
CLO/qs	0																				

Percentage of students with correct answers for each question (extracted directly from item analysis)

Campus	Alfaraa																				
Model	# student	Q 01	Q 02	Q 03	Q 04	Q 05	Q 06	Q 07	Q 08	Q 09	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20
Model A																					
Model B																					
Model C																					
Model D																					
Total	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Campus	Guraiger																				
Model	# student	Q 01	Q 02	Q 03	Q 04	Q 05	Q 06	Q 07	Q 08	Q 09	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20
Model A																					
Model B																					
Model C																					
Model D																					
Total	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Combined	Yes																				
	Total	Q 01	Q 02	Q 03	Q 04	Q 05	Q 06	Q 07	Q 08	Q 09	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20
Total	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

CLOs																					
Course title	-- Select Course --																				
Course code	---																				
CLOs	Overal	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Marks per CLO	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Alfaraa																					
Guraiger																					
Combined																					

- Repeat **step 2** for all adopted THEORY MCQs assessments such as Quiz, midterm, and final.

- For the NON-MCQs type assessments such as laboratory exams, short answers, assignments etc. use the provided **excel sheet for Non – MCQs type assessments (Table 4)**. Course instructors just need to enter the scores of whatever the numbers of students they do have in their specific courses and get the overall percentage (%) of student's achievements for each CLO and paste them in the main DMA sheet.

Table 4: excel sheet for Non – MCQs type assessments.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Template for calculating percentage of students with correct answers for each non-MCQ question												
2	Course Title		Solid Dosage Forms										
3	Activity		Practical										
4			Mark/qs	3	3	3	3	3	3	3	3	3	3
5			CLO/qs	1.1	1.1	5.1	2.1	1.3	1.3	1.4	5.1	1.1	1.1
6			% Correct answers	88.9	100	66.7	66.7	77.8	88.9	94.4	88.9	11.1	100
7	SN	KKU ID	Student Name	Qs 1	Qs 2	Qs 3	Qs 4	Qs 5	Qs 6	Qs 7	Qs 8	Qs 9	Qs 10
8	1	436000000	Name 1	3	3	2	1	2	3	3	2.5	1	3
9	2	436000002	Name 2	2	3	2	2	3	3	3	2.5	0	3
10	3	436000003	Name 3	3	3	2	3	2	2	2.5	3	0	3
11													
12													
13													
14													
15													

1.6   Achievement of PLOs:

Finally on page **CR table, all achievement will show as per the PLOs and course coordinator** need to explain the achievement and recommendations if the achievement is below the **pre-set target value** as well as need to revise the course/teaching content/materials to achieve the target value. Please see Table 5 of the CR Table of DMA excel sheet.

Table 5: CR Table of DMA excel sheet.

Course Learning Outcomes (CLOs)	PLOs Code	Assessment Methods	Assessment Results		Comment on Assessment Results
			Target Level/ Criterion for Success	Actual Level	
1.1	K1	#VALUE!	80%	.	
1.2	K3	#VALUE!	80%	.	
2.1	S1	#VALUE!	80%	.	
2.2	S6	#VALUE!	80%	.	
2.3	S5	#VALUE!	80%	.	
2.4	S5	#VALUE!	80%	.	
2.5	S2	#VALUE!	80%	.	
3.1	V2	#VALUE!	85%	.	
3.2	V3	#VALUE!	85%	.	

2   Course Report:

After completion of the final examinations each course coordinator should fill- up the course report using most updated version (TP-154 v2023) with appropriate information and prepare only one (combined) course report for each course. In part D named Course Learning Outcomes (CLOs)/ Assessment Results, each course coordinator should complete the learning outcomes as written in the (CS) course specification using 3 domains Pharm.D (See the Table 6 below).

2.1   General instructions:

After filling-up the cover page of CR with the detailed information (e.g. course name-with course code, academic year, and semester, etc), each course coordinator should complete the course report based on the **Annexure 1 (workshop instruction).**

Table 6: Course learning outcome assessment result.

	Course learning Outcomes (CLOs)	PLOs Code	Assessment Methods	Assessment Results		Comment on Assessment Results
				Target Level/ Criterion for Success	Actual Level	
1	**Knowledge and Understanding:**					
1.1						
1.2						
1.3						
1...						
2	**Skills:**					
2.1						
2.2						
2.3						
2...						
3	**Values:**					
3.1						
3.2						
3.3						
3...						

2.2   Transfer assessment results (% achievement):

Then transfer the assessment results (% achievement) here in this part from DMA file for each CLO applied for each assessment. Recommendations for the improvement in assessment results if there are any discrepancy between the set/targeted results and the overall achievements (%) of CLOs. Each course coordinator should submit/upload it in the provided Google drive link above after reviewing by the departmental quality representative.

3   CLOs and PLOs achievements analysis using Direct Method of Assessments (DMA):

The primary goal of the College is to help students learning. Course learning outcomes (CLOs) and program learning outcomes (PLOs) has been established and designed to measure the student's achievement for their educational goals. After completing all of the adopted assessments methods of each semester and measuring the student's achievement (%) from adopted CLOs on each course, at first collecting % achievement of adopted PLOs from each course extracted from the DMA file. Then calculate the average value of each adopted PLO which will reflect the student's performance quantitatively to achieve their educational goals. Note that CLOs are already mapped with PLOs for Pharm D courses and % achievement of each PLO will be calculated based on the weighted average. **Assessment plans contain all the details of the assessment activities are given below:**

3.1   Development of assessment plan:

College of pharmacy has developed a competitive and easy semi-automatic method for measuring the direct assessments known as Rubrics of CLOs Assessment (DMA analysis V-3.2-2023) excel file which has been explained above.

3.2   Training of faculty members:

There are three (3) consecutive hands-on workshops were held regarding the techniques of Direct Method of Assessments (DMAs) at the college of pharmacy. The target group was DMA representatives selected from each department. Two representatives (male & female) from each department were selected by The Dean to provide in-person and hands-on training to build up their skills on DMA. Furthermore, each DMA representative provided training closely to each faculty member in their respective department focusing for generating of error free DMA data.

3.3   Deadlines of assessment plans:

To achieve the goals /real time assessment results comprehensive, a realistic deadline has been set to generate error free assessment results for each course learning outcomes (CLOs) of each course of Pharm D program). Refers to the deadlines for each assessment method (Table 1).

3.4 Mapping Pharm D courses achievement vs Program learning outcomes (PLOs):

After completing all assessments methods and evaluating the student's achievement (%) from adopted CLOs on courses, a comprehensive mapping has already been established with PLOs which will reflect the student's to achieve their educational goals. See Table 6.

Table 6: Mapping Pharm D courses achievement vs Program learning outcomes (PLOs):

Course code & No.	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility				
	K1	K2	K3	K4	S1	S2	S3	S4	S5	S6	V1	V2	V3	V4	V5
ENG-019 Intensive English Program								I			I		I		
ICI-111 The Entrance to the Islamic Culture											I		I		
ARAB-201 Arabic Language Skills								I			I				
PHYS-102 General Physics for Health Sciences		I			I										
ZOOL-105 Zoology for Health Sciences		I			I										
CHEM-110 General Chemistry for Health Sciences		I			I										
ICI-112 Islamic Culture II											I		I		
ARAB-202 Arabic Editing								P			P				
ICI-113 Islamic Culture III											I		I		
ICI-114 Islamic Culture IV											P		P		
CHEM-111 Organic Chemistry for Health Sciences		I			I										
PSL-214 Structure and Function of Human Body I		I			I									I	
MBC-223 Biochemistry I		I			I									I	

Course code & No.	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility				
	K1	K2	K3	K4	S1	S2	S3	S4	S5	S6	V1	V2	V3	V4	V5
MBC-228 Biochemistry II		P			P									P	
PSL-215 Structure and Function of Human Body II		P			P									P	
PHT-220 Fundamentals of Pharmaceutics	I				I	I			I						
PHT-222 Physical Pharmacy	I				I	I			I						
PHT-223 Microbiology		I				I	I		I						
PHT-320 Pharmaceutics I	P				P	P		P	P						
PHT-321 Immunology		P					P		P						
PHT-323 Pharmaceutics II	P				P	P			P						
PHT-421 Biopharmaceutics and Pharmacokinetics	P	P			P				P						
PHT-422 Industrial Pharmacy	M				M				M						
PHT-521 Modern Pharmaceutical Technology	M				M				M						
PHL-331 Pharmacology I	P				P	P	P	P	P	P		P	P		
PHL-333 Pharmacology II	P		P		P	P			P	P		P	P		
PHL-435 Pharmacology III	M		M				M		M	M		M	M		
PHL-436 Pharmacology IV	M		M		M		M		M	M		M	M		
PHL-537 Toxicology	M		M		M	M	M		M	M	M				M
PHL-538 Pharmacogenomics		M	M				M		M	M					
PHG-310 Basics of Natural Products	I					I									
PHG-411 Complementary and Alternative Medicine	P		P		P			P	P	P					
PHG-513 Nutraceuticals and Dietary supplements	M		M		M		M	M	M	M					M

Course code & No.	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility				
	K1	K2	K3	K4	S1	S2	S3	S4	S5	S6	V1	V2	V3	V4	V5
PHG-514 Pharmaceutical Biotechnology	M		M					M	M			M			
PCH- 201 Pharmaceutical Organic Chemistry	I				I	I						I			
PCH- 202 Pharmaceutical Analytical Chemistry	I					I									
PCH- 303 Medicinal Chemistry I	I				P				P			P			
PCH- 304 Medicinal Chemistry II	P				P			I	P			P			
PCH- 405 Medicinal Chemistry III	M				M				M			M			
PCH-406 Drug Discovery	M				M				M			M			
CPH-241 Pharmacy Orientation		I	I				I					I	I		
CPH-348 Professional Pharmacy Practice Laboratory I			P/M				P/M	P/M	P/M	P/M		P/M			P/M
CPH-442 Therapeutics I		P/M	P/M				P/M	P/M	P/M	P/M		P/M	P/M		
CPH-450 Pharmacy Management			P	P				P		P					
CPH-451 Professional Pharmacy Practice Laboratory II			M				M	M	M	M		M			M
CPH-452 Therapeutics II		M	M				M	M	M	M		M	M		
CPH-454 Clinical Pharmacokinetics	M				M			M	M		M	M	M		
CPH-548 Evidence Based Practice			M	M		M	M	M	M	M	M		M		
CPH-553 Therapeutics III		M	M				M	M	M	M		M	M		
CPH-554 Therapeutics IV		M	M				M	M	M	M		M	M		

Course code & No.	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility				
	K1	K2	K3	K4	S1	S2	S3	S4	S5	S6	V1	V2	V3	V4	V5
CPH-555 Pharmacoepidemiology and research methodology			M	M		M	M		M	M			M		
CPH-556 Self-Care and Nonprescription Drugs			M		M			M				M		M	
CPH-557 Pharmacy Regulations and Ethics	M								M	M			M		
CPH-558 Professional Pharmacy Practice Laboratory III			M				M	M	M	M		M			M
CPH-559 First Aid and Emergency Medicine			M					M	M	M	M	M			
CPH-560 PharmD Seminar				M			M	M	M						
CPH-360 Introductory Pharmacy Practice Experience I	M		M		M			M		M			M		
CPH-460 Introductory Pharmacy Practice Experience II			M		M			M	M						M
CPH-651 to CPH-658 Advanced Pharmacy Practice Experience I to VIII	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M

4   Student Grades and Statistical Analysis Reports (SGSAR v2.3):

The Microsoft Excel program has been used in calculating the student's grades and generating the statistical analysis reports for all courses (Pharm D) and based on this analysis final results are being published through academia. Note that this official statistical analysis report needs to be generated for each section (campus -wise) of every course and submitted along with other required documents prior to the *final results approval* from the Head of Department (HOD) and subsequently from the Vice Dean for Academic Affairs and Development (VDED). The information below explains the procedures for obtaining the student's grade and statistical reports:

Regarding the Excel TAB called Sections:

- All course coordinators should fill-up the general information such as name of dept, Course code etc…in the first table in FIRST EXEL TAB called Section 1. Note that no one should touch the middle graphical and statistical part of the excel spreadsheet in same section as it will come up automatically.

- In the last table is known as **continuous assessment** table what needs to be filled up mentioning assessment types based on the course by course coordinator with the assistance of course section's instructor. Note that if you have only one assignment in your course, you need to deactivate other column (such as assignment 2) using a commend **"."** in all the cells (full column) and then put the assignment mark accordingly.

- SECOND EXEL TAB called Section 2, only needs to fill-up the information of section no, course instructor and campus. All other information will be appeared automatically from the previous sheet. Then follow the steps based on the above. This is way course coordinator will complete all the sections based of the course.

- EXCEL TAB called CURVED GRADES, if there is necessary to fit the curved grades, then it needs to be discussed in the department meeting and decide if it (fitting the curved grades) is approved or not. For an example if it is decided that pass mark would be lowered from 60 to 59 then the value 59 need to put in the cell instead of 60 and the graph (grades vs students results) will change automatically. It should be recorded officially.

Regarding the Excel TAB called Stat Per Section and so on:

- Based on the as usual practice, course instructors and course coordinators were in need to do statistically analysis using SPSS but with this excel sheet all data such as mean, std, Skewness etc. will appear automatically and the course coordinator just needs to print it straight away by pressing the CTL+P for all sections.

- Similarly, all statistical data will appear as COMBINED for the course in next EXCEL TAB called combined stat for all sections.

- Course coordinator just needs to write the recommendations based on the results.

- In Stat Tests Excel TAB, it has two parts: activation the data analysis feature of the excel sheet and performing the analysis if you have more than 3 sections or less the 3 section of your course.

5   Final Results Report:

After completing the final excel sheet of student grade and statistical analysis reports (SGSAR v2.3) all grades needs to be recorded/entered in the academia (https://registration.kku.edu.sa/kku/ui/staff/homeIndex.faces), *save but NOT fix it* and print the PDF copy. Signed and verified by the course coordinator and instructors, HOD respectively and submit to HOD with other required documents for the approval and subsequent Vice Dean for Academic Affairs (VDED). Note that this is cycle of each semester for each Pharm D courses.

6   Field Experience Report:

After completion of the field teaching courses, course coordinator should fill-up the updated field experience report (FER) form with appropriate information and make it ready for the college QA submission/ uploading it in the provided Google drive link above after reviewing by the departmental quality representative.

7   Course File Review by Quality Assurance Unit:

All the documents defined as course files (Table 1) are peer reviewed (Dept Quality & amp; Development committees & amp; another Dept. QA committee members) periodically (semester-wise), and by the Vice Deanship of Educational Services and Development respectively, which is an important aspect for quality assurance at the course and program level. Course instructors are involved in reviewing the various aspects such as lecture notes, lab manuals, etc, while quality assurance representatives will be involved in reviewing the NCAAA documents like course specifications, course reports, CLO assessment, course syllabus, students grade and statistical analysis reports, action plans, and academia files. The following Figure 1 shows the reviewing and approval process of course files in the college.
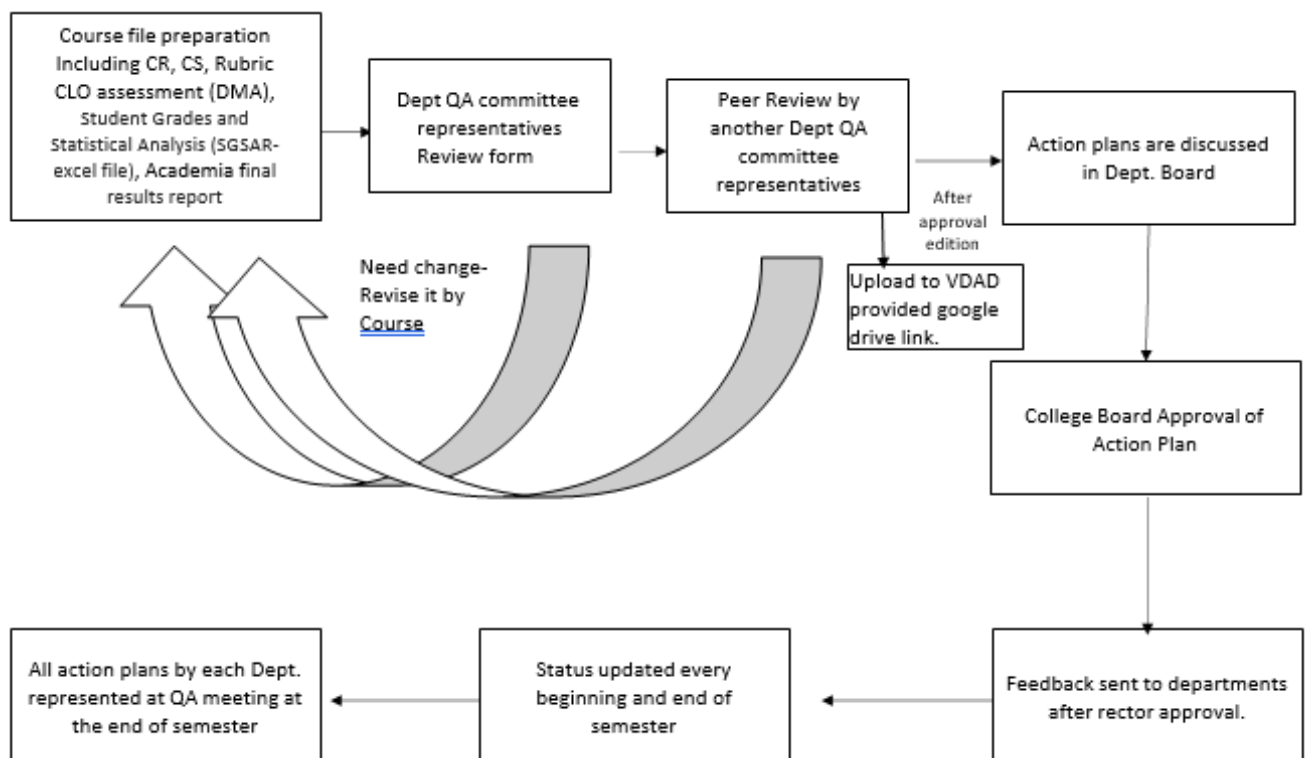

Figure 1: Course file review cycle